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Projections to 1982 by Occupation and Industry

West Virginia

west virginia department of employment security

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PROJECTIONS TO 1982

BY OCCUPATION AND INDUSTRY

WEST VIRGINIA

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INTRODUCTION

The Occupational Employment Statistics (OES) Program is a joint Federal-State cooperative effort involving the West Virginia Department of Employment Security and two agencies of the U. S. Department of Labor, the Bureau of Labor Statistics and the Employment and Training Administration. Created in response to the need for current and projected occupational employment information by industry, government, and educational planners, the program consists of three key elements:

(1) The development, through an extensive series of mail surveys of employers, of occupational staffing patterns for each industry.

(2) The development of current and projected total employment estimates for each industry.

(3) The merger of the first two elements into an industry-occupation matrix, which provides estimates of base-year and projected-year employment and average annual job openings, by occupation, for the universe of nonagricultural wage and salary workers.

This report is the first since the inception of the OES program in West Virginia to combine all three of the above elements. The previous study, "Projections to 1985, Industry and Occupation," employed census-based occupational staffing patterns. The staffing patterns used in this set of projections to 1982 came, with a few exceptions, from OES surveys. Approximately 1,100 specific occupations in West Virginia are covered. The information contained in this report is for the state as a whole. Similar reports on the Charleston, Huntington, Parkersburg and Wheeling SMSA's will be published in the near future.

USING THE DATA: LIMITATIONS AND CAUTIONS

This report contains only nonagricultural wage and salary employment data, which excludes farm workers, the self-employed, unpaid family workers and most domestics. Since nonagricultural employment data is based on a place-of-work concept, workers who live in other states but work in West Virginia are included in the estimates; residents of West Virginia who work outside the state are not. Essentially, jobs rather than individuals are counted. No adjustment is made for multiple jobholding; persons holding several jobs are counted several times. As a consequence, the information contained in this report is not directly comparable to census data, which is residence-based, counts each person only once, and includes farm workers, the self-employed, and so forth. In particular, occupations which include many self-employed persons - dentists, barbers or gunsmiths, for example - are likely to show lower totals than census-based estimates. Moreover, persons who function as managers or officials are counted as such, whatever their training, background, or profession qualifications. To illustrate, a civil engineer employed by an engineering firm is counted as a civil engineer; a civil engineer managing a construction project is counted as a manager; and a self-employed civil engineer is not counted at all.

The OES surveys which make up the occupational data base for this report were done between 1974 and 1976. Staffing patterns developed from these surveys were projected, industry by industry, to 1982. Only those changes in occupational employment resulting from the projected growth or decline of employment in the various industries appear in the data. No adjustments have been made for technological changes <u>within</u> a specific industry which may cause certain occupations to increase or decrease more or less rapidly than

total employment for that industry. However, since the elapsed time between the earliest survey year (1974) and the projected year (1982) is only eight years, it is unlikely that technological developments will bring about major changes in the staffing patterns for most industries.

The industry definitions used in this report are based upon both the 1967 and 1972 editions of the Standard Industrial Classification Manual. The OES surveys which provide the occupational data were done while the process of conversion from one classification system to the other was under way. The Methodology section explains the codes used for specific industries. As a consequence of the coding system employed, the definitions of Services and Government used in this report do not match those appearing in other publications of this agency. State colleges and universities, county schools, and state, county and city hospitals are included here in Services, rather than in Government. Since the 1976 employment for these cells was approximately 57,000, employment in Services is higher than the regularly published figure by this amount, while Government employment is lower than the usual figure by the same quantity. Minor variations in the coding systems affect some other industries. As a consequence, industry employment data published in this report should not be compared directly with similar data regularly published by the West Virginia Department of Employment Security.

Occupations with employment estimates as low as one person are published in Table 5. Such small cells are of little statistical value. Their inclusion allows all occupations to add to the totals and renders the data comparable to similar publications being produced in other states. An employment estimate of less than fifty should be regarded simply as an indication that only a few

persons are employed in the occupation in question. All of the numbers, large and small, are statistical estimates rather than actual counts.

The industry projections used in this report were based upon the national assumptions detailed in the Methodology section, and on the contingent assumption that West Virginia's economy would, during the 1976-1982 period, sustain the growth rates which prevailed from 1970 to 1976. Industry cells were projected by analysis of past and current state and national trends, and modified by specific knowledge of state industries and major employers where practical.

Inasmuch as the occupational projections are built upon the industry projections, a higher or lower rate of economic growth would necessarily produce more or less growth in occupational employment, and a greater or lesser number of job openings.

OCCUPATIONAL OUTLOOK TO 1982

The first three tables provide a summary of the data presented in much greater detail in Tables 5 and 6. Table 1 shows 1976 and projected 1982 nonagricultural wage and salary employment, along with estimates of average annual job openings for major occupational groups. Table 2 is a list of the twenty detailed occupations for which the largest numbers of job openings are expected, while Table 3 tallies the twenty occupations with the highest percentage growth.

During the six-year period from 1976 to 1982, West Virginia's nonagricultural wage and salary employment is projected to increase by nearly 89,000, or almost 15 percent. This growth in employment will produce approximately 15,000 job openings each year. An even larger number of openings - over 20,000 a year - will be generated by separations from the labor force. Each year, about this number of workers retire, die, become disabled, or leave the labor force for a variety of reasons - to marry, have children, or return to school, for instance. These openings do not include the much larger number of workers who move from one position or occupation to another. Openings due to growth and openings due to separation combine to yield an estimated average of 35,000 job openings per year for the 1976-1982 period.

"White collar" workers fall into the professional, managerial, sales, or clerical groups. Professional, technical and kindred occupations - most of which require at least a college degree - are projected to grow a little more slowly than average, but nonetheless should generate nearly 5,000 openings each year. Within this group, occupations in the medical field are expected to show substantial growth and a large number of job openings. While openings for elementary and secondary school teachers should be numerous due to replacement demand, competition for these openings is likely to be high.

More than 3,000 annual openings are anticipated for managers and officials. It should be remembered that the self-employed, including proprietors who frequently function in managerial or professional capacities, are not counted in this study.

Sales workers are the smallest of the major occupational groups but the second fastest-growing, with an 18% increase in employment projected between 1976 and 1982. The occupation of sales clerk - which comprises over 60% of all sales workers - is second among all occupations in West Virginia in average annual job openings, with nearly 1,400 positions expected to become available each year. The rate of employment growth for clerical workers - one of the largest groups - is slightly above the average for all occupations. More than 6,100 openings for clerical positions are expected each year, including over 900 for general clerks and nearly 800 for secretaries.

"Blue collar" workers are divided into three categories: crafts and kindred workers, operatives, and nonfarm laborers. The distinction is in the amount of training required - two years or more for the first group, thirty days to two years for the second, and less than thirty days for the third. While these three groups are not increasing quite as rapidly as employment generally, more than 12,000 blue-collar openings are expected each year. In the crafts and kindred group, blue collar supervisors have the largest projected number of average annual openings with more than 700. Carpenters should experience over 450 openings a year, heavy equipment operators about 400, and automotive mechanics nearly 350. Openings for truck drivers are expected to exceed 700 each year, far more than for any other single operative occupation. Among laborers, trades helpers should have the largest number of openings, nearly 400 a year.

Service workers are the fastest growing of the major occupational groups, with a projected increase of nearly 17,000, or 23%, between 1976 and 1982. Five of the twenty occupations with the greatest number of job openings, and seven of the twenty with the highest percentage growth, are among service workers. Anticipated openings for janitors and sextons exceed 1,600 a year, more than for any othe single occupation. Food service occupations of all sorts are prominent among the fastest-growing, and generate substantial numbers of openings. Numerous openings are also expected for nurses aides and orderlies and for guards and doorkeepers.

Table 4 is a summary of the industry projections upon which the occupational projections are based. While employment in every major sector of West Virginia's economy is expected to grow, relatively slow growth is anticipated for Manufacturing, Transportation, Communications and Public Utilities, and Government. Construction, Trade, and Finance, Insurance and Real Estate, on the other hand, should experience growth rates well above the average. Note that state and local government educational institutions and hospitals, normally included in the Government employment figures published by this agency, are here counted under Services in order to render this report compatible with similar studies being published in other states.

Tables 5 and 6 are designed to provide data on occupational employment and job openings in as much detail as possible. The Limitations and Cautions section of this report, especially in reference to occupations with employment of less than fifty, should be consulted before this data is used. The Dictionary of Occupational Titles (U. S. Department of Labor, 1977) is the best available source for definitions and descriptions of detailed occupations.

The final Tables (7A through 7H) are intended to summarize occupational employment in the major industry divisions. Detailed occupations are limited to those with at least 0.5% of the employment in an industry division. Since there are no residual or "all other" categories, the detailed occupations do not add to the major occupational groups. These tables are limited to actual and projected employment. No data is available on job openings for industry divisions or specific industries.

TABLE 1

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY MAJOR OCCUPATIONAL GROUP, 1976 AND PROJECTED 1982

Occupation	Employment 1976	Employment 1982	Change, 1976-1982 Number	Change, 1976-1982 Percent	Average Annual Job Openings, 1976-1982 Total Openings	Openings Due to Growth	Openings Due to Separation
TOTAL, ALL OCCUPATIONS	599,508	688,052	88,544	14.8	35,325	14,845	20,480
Professional, Technical & Kindred Workers	86,875	97,948	11,073	12.7	5,019	1,871	3,148
Managers & Officials	46,219	53,092	6,873	14.9	3,382	1,147	2,235
Sales Workers	32,392	38,264	5,872	18.1	2,317	977	1,340
Clerical Workers	100,274	115,570	15,296	15.3	6,140	2,549	3,591
Crafts & Kindred Workers	104,721	119,122	14,401	13.8	5,196	2,400	2,796
Operatives	108,820	120,738	11,918	11.0	4,517	2,030	2,487
Service Workers	73,263	90,180	16,917	23.1	6,388	2,838	3,550
Laborers, Except Farm	46,944	53,138	6,194	13.2	2,366	1,033	1,333

TABLE 2

TOP TWENTY DETAILED OCCUPATIONS IN WEST VIRGINIA
BY AVERAGE ANNUAL JOB OPENINGS, 1976-1982

Occupation	Total Openings	Percent of 1982 Employment*	Openings Due to Growth	Openings Due to Separation
1. Janitors & Sextons	1,637	7.62	551	1,086
2. Sales Clerks	1,392	6.02	591	801
3. Elementary School Teachers	921	7.05	273	648
4. General Clerks, Office	906	5.54	328	578
5. Secretaries	786	5.26	342	444
6. Food Preparation & Service Workers, Fast Food Restaurant	759	9.30	475	284
7. Supervisors, Blue Collar, Nonworking	732	4.31	286	446
8. Cashiers	727	6.08	377	350
9. Truck Drivers	725	4.04	421	304
10. Waiters or Waitresses	698	7.41	459	239
11. Nurses Aides/Orderlies	639	5.53	256	383
12. Secondary School Teachers	541	5.36	210	331
13. Carpenters	456	6.52	234	222
14. Stock Clerks, Stockroom, Warehouse, etc.	417	5.15	220	197
15. Nurses, Professional	407	5.84	157	250
16. Heavy Equipment Operators	396	4.09	248	148
17. Helpers, Trades	392	4.38	224	168
18. Bookkeepers	373	6.63	165	208
19. Guards & Doorkeepers	345	9.49	141	204
20. Automotive Mechanics	343	4.52	186	157

* Percent of the projected 1982 employment for the occupation in question.

TABLE 3

TOP TWENTY DETAILED OCCUPATIONS IN WEST VIRGINIA
BY PERCENT GROWTH, 1976-1982*

Occupation	Employment 1976	Employment 1982	Change, 1976-1982 Number	Change, 1976-1982 Percent
1. Food Preparation and Service Workers, Fast Food Restaurant	5,310	8,159	2,849	53.7
2. Cooks, Short Order/Specialty Fast Food	2,451	3,544	1,093	44.6
3. Waiters or Waitresses	6,660	9,414	2,754	41.4
4. Rotary Drill Operator Helpers	352	491	139	39.5
5. Roustabouts (Oil Drilling)	511	712	201	39.3
6. Waiters' Assistants	772	1,067	295	38.2
7. Cooks, Restaurant	1,542	2,099	557	36.1
8. Tellers	2,290	3,062	772	33.7
9. Bricklayers	748	983	235	31.4
10. Office Machine Servicers/ Cash Register Servicers	526	691	165	31.4
11. Baggers (Supermarket)	664	872	208	31.3
12. Guards & Doorkeepers	2,789	3,635	846	30.3
13. Reinforcing Iron Workers	581	756	175	30.1
14. Cost Estimators	318	413	95	29.9
15. Collectors, Bill & Account	421	545	124	29.5
16. Surveyors	717	928	211	29.4
17. Butchers &/Or Meat Cutters	1,133	1,462	329	29.0
18. Surveyors' Helpers	826	1,065	239	28.9
19. Roofers	351	452	101	28.8
20. Engineering Equipment Mechanics	1,162	1,486	324	27.9

* Limited to occupations with 1976 employment 300 or greater.

TABLE 4

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT BY INDUSTRY
1976 AND PROJECTED 1982

Industry	Employment 1976	1982	Change, 1976-1982 Number	Percent
	(000)	(000)	(000)	
TOTAL, ALL INDUSTRIES	599.6	688.1	88.6	14.8
MINING	68.7	80.8	12.1	17.6
Bituminous Coal Mining	64.1	74.8	10.7	16.7
Other Mining	4.6	6.0	1.4	30.4
CONSTRUCTION	32.5	41.5	9.0	27.7
MANUFACTURING	126.4	131.4	5.0	4.0
Durable Goods	74.5	77.3	2.8	3.8
Lumber & Furniture	6.4	6.5	0.1	1.6
Stone, Clay & Glass	18.0	18.1	0.1	0.6
Primary Metals	24.8	25.8	1.0	4.0
Fabricated Metals	7.9	8.1	0.2	2.5
Machinery	11.7	12.6	0.9	7.7
Other Durable Goods	5.7	6.2	0.5	8.8
Nondurable Goods	51.9	54.1	2.2	4.2
Food & Kindred Products	5.5	5.8	0.3	5.5
Apparel & Textiles	7.5	7.7	0.2	2.7
Printing & Publishing	2.9	3.2	0.3	10.3
Chemicals	26.7	27.7	1.0	3.7
Other Non-Durable Goods	9.3	9.7	0.4	4.3
TRANSPORTATION, COMMUNICATIONS & PUBLIC UTILITIES	39.6	41.5	1.9	4.8
TRADE	116.6	147.1	30.5	26.2
Wholesale Trade	29.9	37.6	7.7	25.8
Retail Trade	86.7	109.5	22.8	26.3
General Merchandise Stores	17.1	19.0	1.9	11.1
Food Stores	14.8	19.5	4.7	31.8
Automotive Dealers & Service Stations	14.3	16.1	1.8	12.6
Eating & Drinking Places	17.2	26.7	9.5	55.2
Other Retail Trade	23.3	28.2	4.9	21.0
FINANCE, INSURANCE & REAL ESTATE	18.7	22.7	4.0	21.4
SERVICES	144.6	169.2	24.6	17.0
Medical Services[1]	39.9	47.1	7.2	18.0
Educational Services[2]	55.0	62.9	7.9	14.4
Other Services	49.7	59.2	9.5	19.1
GOVERNMENT	52.4	53.9	1.5	2.9
Federal Government[3]	15.4	15.4	0	0
State Government[4]	22.0	23.0	1.0	4.5
Local Government[5]	15.0	15.5	0.5	3.3

1. Includes state, county, and city hospitals, but not VA hospitals
2. Includes state colleges and universities and county schools
3. Includes VA hospitals
4. Does not include state colleges and universities or state hospitals
5. Does not include county schools or county or city hospitals

TABLE 5

NONAGRICULTURAL WAGE AND SALARY EMPLOYMENT AND PERCENT DISTRIBUTION BY OCCUPATION, 1976 AND PROJECTED 1982

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
TOTAL, ALL OCCUPATIONS	599,508	100.00	688,052	100.00	88,544	14.8
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	86,875	14.49	97,948	14.24	11,073	12.7
ENGINEERS	6,436	1.07	7,076	1.03	640	9.9
Aero-Astronautic Engineers	11	0.00	13	0.00	2	18.2
Chemical Engineers	1,409	0.24	1,460	0.21	51	3.6
Civil Engineers	956	0.16	1,109	0.16	153	16.0
Electrical Engineers	995	0.17	1,108	0.16	113	11.4
Industrial Engineers	1,033	0.17	1,133	0.16	100	9.7
Mechanical Engineers	806	0.13	869	0.13	63	7.8
Metallurgical Engineers	236	0.04	249	0.04	13	5.5
Mining Engineers	402	0.07	473	0.07	71	17.7
Petroleum Engineers	61	0.01	81	0.01	20	32.8
Other Engineers	527	0.09	581	0.08	54	10.2
Traffic Engineers	12	0.00	12	0.00	0	0
All Other Engineers	515	0.09	569	0.08	54	10.5
LIFE & PHYSICAL SCIENTISTS	1,502	0.25	1,590	0.23	88	5.9
Agricultural Scientists	41	0.01	41	0.01	0	0
Atmospheric Scientists	17	0.00	17	0.00	0	0
Life Scientists	116	0.02	123	0.02	7	6.0
Biological Scientists	100	0.02	104	0.02	4	4.0
Medical Scientists	16	0.00	19	0.00	3	18.8
Chemists	1,035	0.17	1,084	0.16	49	4.7
Geologists	102	0.02	112	0.02	10	9.8
Physicists	47	0.01	51	0.01	4	8.5
Life, Physical Scientists, NEC*	144	0.02	162	0.02	18	12.5

* See ABBREVIATIONS

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
MATHEMATICAL SPECIALISTS	167	0.03	175	0.03	8	4.8
Actuaries	3	0.00	3	0.00	0	0
Mathematical Scientists	57	0.01	60	0.01	3	5.3
Mathematicians	53	0.01	56	0.01	3	5.7
All Other Mathematical Scientists	4	0.00	4	0.00	0	0
Statisticians	107	0.02	112	0.02	5	4.7
ENGINEERING, SCIENCE TECHNICIANS	6,797	1.13	7,669	1.11	872	12.8
Drafters	1,551	0.26	1,858	0.27	307	19.8
Electrical, Electronic Technicians	1,263	0.21	1,439	0.21	176	13.9
Video Recording Engineers	15	0.00	16	0.00	1	6.7
Electrical & Electronic Technicians	1,159	0.19	1,330	0.19	171	14.8
Broadcast Technicians	89	0.01	93	0.01	4	4.5
Mathematical Technicians	33	0.01	34	0.00	1	3.0
Mechanical Engineering Technicians	468	0.08	485	0.07	17	3.6
Surveyors	717	0.12	928	0.13	211	29.4
Engineering, Science Technicians, NEC	2,765	0.46	2,925	0.43	160	5.8
Observers, Electrical or Gravity Prospecting	4	0.00	6	0.00	2	50.0
Timber Cruisers	17	0.00	17	0.00	0	0
Traffic Technicians	52	0.01	54	0.01	2	3.8
All Other Engineering Technicians	1,365	0.23	1,450	0.21	85	6.2
All Other Science Technicians	1,327	0.22	1,398	0.20	71	5.4
MEDICAL WORKERS, EXC. TECHNICIANS	9,318	1.55	10,790	1.57	1,472	15.8
Chiropractors	11	0.00	13	0.00	2	18.2
Dentists	244	0.04	285	0.04	41	16.8
Dietitians	221	0.04	253	0.04	32	14.5
Nurses & Physicians Assistants	6,176	1.03	7,136	1.04	960	15.5
Nurses, Professional	6,031	1.01	6,972	1.01	941	15.6
Physicians Assistants	145	0.02	164	0.02	19	13.1
Pharmacists	664	0.11	812	0.12	148	22.3
Physicians, Medical & Osteopathic	1,659	0.28	1,902	0.28	243	14.6

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Therapists	320	0.05	365	0.05	45	14.1
Occupational Therapists	33	0.01	37	0.01	4	12.1
Speech & Hearing Clinicians, etc.	101	0.02	114	0.02	13	12.9
Physical Therapists	124	0.02	142	0.02	18	14.5
Audiometrists	5	0.00	6	0.00	1	20.0
Corrective Therapists	7	0.00	7	0.00	0	0
Inhalation Therapists	50	0.01	59	0.01	9	18.0
Veterinarians	23	0.00	24	0.00	1	4.3
HEALTH TECHNOLOGISTS & TECHNICIANS	8,063	1.34	9,455	1.37	1,392	17.3
Clinical Lab Technologists & Technicians	1,203	0.20	1,407	0.20	204	17.0
Medical Lab Technologists	610	0.10	707	0.10	97	15.9
Cytotechnologists	28	0.00	33	0.00	5	17.9
Medical Lab Assistants	565	0.09	667	0.10	102	18.1
Dental Hygienists & Assistants	1,153	0.19	1,362	0.20	209	18.1
Dental Assistants	810	0.14	956	0.14	146	18.0
Dental Hygienists	343	0.06	406	0.06	63	18.4
Health Record Technologists & Technicians	268	0.04	316	0.05	48	17.9
Radiologic Technologists & Technicians	817	0.14	960	0.14	143	17.5
X-Ray Technicians	735	0.12	868	0.13	133	18.1
Nuclear Medicine Technologists	47	0.01	55	0.01	8	17.0
Radiation Therapy Technologists	35	0.01	37	0.01	2	5.7
Other Health Technologists & Technicians	4,622	0.77	5,410	0.79	788	17.0
Surgical Technicians	265	0.04	314	0.05	49	18.5
Orthopists	3	0.00	3	0.00	0	0
Prosthetists, Orthotists	1	0.00	1	0.00	0	0
EKG Technicians	170	0.03	197	0.03	27	15.9
EEG Technicians	7	0.00	8	0.00	1	14.3
Pharmacy Helpers	197	0.03	233	0.03	36	18.3
Licensed Practical Nurses	3,191	0.53	3,753	0.55	562	17.6
All Other Medical & Dental Technicians	788	0.13	901	0.13	113	14.3

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
TECHNICIANS, EXC. HEALTH OR S&E*	1,906	0.32	2,047	0.30	141	7.4
Airplane Pilots	107	0.02	121	0.02	14	13.1
Air Traffic Controllers	158	0.03	158	0.02	0	0
Embalmers	184	0.03	175	0.03	- 9	- 4.9
Embalmers	157	0.03	149	0.02	- 8	- 5.1
Ladies' Attendants	27	0.00	26	0.00	- 1	- 3.7
Flight Engineers	2	0.00	3	0.00	1	50.0
Radio Operators	36	0.01	39	0.01	3	8.3
Tool Programmers, Numerical Control	31	0.01	33	0.00	2	6.5
Other Technicians, exc. Health or S&E	1,388	0.23	1,518	0.22	130	9.4
Museum Technicians, Restorers	30	0.01	30	0.00	0	0
All Other Technicians	1,358	0.23	1,488	0.22	130	9.6
COMPUTER SPECIALISTS	927	0.15	1,045	0.15	118	12.7
Computer Programmers	562	0.09	642	0.09	80	14.2
Computer Systems Analysts	365	0.06	403	0.06	38	10.4
SOCIAL SCIENTISTS	410	0.07	437	0.06	27	6.6
Economists	90	0.02	93	0.01	3	3.3
Psychologists	145	0.02	160	0.02	15	10.3
Sociologists	16	0.00	16	0.00	0	0
Urban & Regional Planners	43	0.01	44	0.01	1	2.3
Other Social Scientists	116	0.02	124	0.02	8	6.9
TEACHERS	25,475	4.25	29,049	4.22	3,574	14.0
Adult Education Teachers	585	0.10	658	0.10	73	12.5
College & University Teachers	2,939	0.49	3,359	0.49	420	14.3
Teachers, College	2,256	0.38	2,579	0.37	323	14.3
Graduate Assistants	653	0.11	746	0.11	93	14.2
Extension Service Specialists	30	0.01	34	0.00	4	13.3
Elementary School Teachers	11,435	1.91	13,070	1.90	1,635	14.3
Preschool, Kindergarten Teachers	863	0.14	947	0.14	84	9.7

* See ABBREVIATIONS

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Secondary School Teachers	8,826	1.47	10,088	1.47	1,262	14.3
Teachers, NEC	827	0.14	927	0.13	100	12.1
Dance Instructors	13	0.00	13	0.00	0	0
All Other Teachers	814	0.13	914	0.13	100	12.3
WRITERS, ARTISTS, & ENTERTAINERS	2,932	0.49	3,265	0.47	333	11.4
Athletes & Kindred Workers	114	0.02	118	0.02	4	3.5
Athletes	13	0.00	13	0.00	0	0
Coaches, Professional Athletes	3	0.00	3	0.00	0	0
Sports Instructors	98	0.02	102	0.01	4	4.1
Designers	822	0.14	1,011	0.15	189	23.0
Designers	821	0.14	1,010	0.15	189	23.0
Furriers	1	0.00	1	0.00	0	0
Editors & Reporters	562	0.09	613	0.09	51	9.1
Writers &/Or Editors	245	0.04	268	0.04	23	9.4
Film Editors	14	0.00	15	0.00	1	7.1
Reporters & Correspondents	303	0.05	330	0.05	27	8.9
Musicians	460	0.08	462	0.07	2	0.4
Photographers	245	0.04	289	0.04	44	18.0
Photographers	210	0.04	252	0.04	42	20.0
Television Camera Operators	35	0.01	37	0.01	2	5.7
Public Relations Specialists	342	0.06	366	0.05	24	7.0
Radio, TV Announcers	387	0.06	406	0.06	19	4.9
Announcers	335	0.06	351	0.05	16	4.8
Broadcast News Analysts	52	0.01	55	0.01	3	5.8
OTHER PROFESSIONAL & TECHNICAL WORKERS	22,942	3.83	25,350	3.68	2,407	10.5
Accountants	3,241	0.54	3,895	0.57	654	20.2
Accountants & Auditors	2,724	0.45	3,325	0.48	601	22.1
Tax Examiners, Collectors, Revenue Agents	448	0.07	459	0.07	11	2.5
Tax Preparers	69	0.01	111	0.02	42	60.9

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Architects	77	0.01	109	0.02	32	41.6
Archivists & Curators	36	0.01	36	0.01	0	0
Archivists	1	0.00	1	0.00	0	0
Museum Curators	35	0.01	35	0.01	0	0
Buyers & Purchasing Agents	2,555	0.43	3,032	0.44	477	18.7
Purchasing Agents &/Or Buyers	789	0.13	861	0.13	72	9.1
Lease Buyers	24	0.00	33	0.00	9	37.5
Media Buyers	2	0.00	2	0.00	0	0
Buyers, Retail &/Or Wholesale Trade	1,740	0.29	2,136	0.31	396	22.8
Clergy	5,170	0.86	5,053	0.73	- 117	- 2.3
Directors, Religious Activities &/Or Religious Education	8	0.00	8	0.00	0	0
Foresters	186	0.03	188	0.03	2	1.1
Judges	368	0.06	380	0.06	12	3.3
Judges	123	0.02	127	0.02	4	3.3
Magistrates	245	0.04	253	0.04	8	3.3
Lawyers & Kindred Workers	986	0.16	1,212	0.18	226	22.9
Law Clerks	93	0.02	123	0.02	30	32.3
Lawyers	859	0.14	1,043	0.15	184	21.4
Paralegal Personnel	34	0.01	46	0.01	12	35.3
Librarians	964	0.16	1,089	0.16	125	13.0
Librarians	881	0.15	994	0.14	113	12.8
Audio Visual Specialists	83	0.01	95	0.01	12	14.5
Personnel, Labor Relations Specialists	1,094	0.18	1,193	0.17	99	9.0
Personnel, Labor Relations Specialists	766	0.13	823	0.12	57	7.4
Employment Interviewers	328	0.05	370	0.05	42	12.8
Recreation Workers	197	0.03	206	0.03	9	4.6
Social Workers	1,599	0.27	1,688	0.25	89	5.6
Caseworkers	1,357	0.23	1,438	0.21	81	6.0
Welfare Investigators	3	0.00	3	0.00	0	0
Community Organization Workers	239	0.04	247	0.04	8	3.3
Vocational & Educational Counselors	1,021	0.17	1,145	0.17	124	12.1

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
All Other Professional Workers	5,440	0.91	6,116	0.89	676	12.4
Technical Directors	35	0.01	37	0.01	2	5.7
Hospital Insurance Representatives	4	0.00	4	0.00	0	0
Safety Inspectors	165	0.03	178	0.03	13	7.9
Underwriters	141	0.02	146	0.02	5	3.5
Cost Estimators	318	0.05	413	0.06	95	29.9
Credit Analysts, Chief	49	0.01	60	0.01	11	22.4
Credit Analysts	120	0.02	143	0.02	23	19.2
Title Examiners &/Or Abstractors	6	0.00	8	0.00	2	33.3
Investigators, Insurance	43	0.01	46	0.01	3	7.0
Appraisers, Real Estate	131	0.02	144	0.02	13	9.9
Assessors	419	0.07	432	0.06	13	3.1
Claims Takers, Unemployment Benefits	81	0.01	85	0.01	4	4.9
Broker's Floor Representatives, Security Traders, etc.	5	0.00	5	0.00	0	0
Special Agents, Insurance	41	0.01	41	0.01	0	0
Travel Agents, Travel Accommodations Appraisers	71	0.01	75	0.01	4	5.6
Claim Examiners, Property/Casualty Insurance	56	0.01	57	0.01	1	1.8
All Other Professional	3,755	0.63	4,242	0.62	487	13.0
MANAGERS & OFFICIALS	46,219	7.71	53,092	7.72	6,873	14.9
SALES MANAGERS	2,078	0.35	2,513	0.37	435	20.9
Sales Managers, Retail Trade	2,078	0.35	2,513	0.37	435	20.9
ADMINISTRATORS, PUBLIC INSPECTORS	2,774	0.46	2,836	0.41	62	2.2
Construction Inspectors, Public Administration	973	0.16	1,013	0.15	40	4.1
Inspectors, exc. Construction, Public Administration	822	0.14	841	0.12	19	2.3
Postmasters & Mail Superintendents	979	0.16	982	0.14	3	0.3
OTHER MANAGERS & OFFICIALS	41,367	6.90	47,743	6.94	6,376	15.4

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Railroad Conductors	614	0.10	611	0.09	- 3	- 0.5
Other Managers & Administrators	40,753	6.80	47,132	6.85	6,379	15.7
Managers, Store	5,577	0.93	6,769	0.98	1,192	21.4
Managers, Auto Service Department	401	0.07	451	0.07	50	12.5
Managers, Auto Parts Department	314	0.05	354	0.05	40	12.7
Wholesalers	1,591	0.27	1,994	0.29	403	25.3
All Other Managers	32,870	5.48	37,564	5.46	4,694	14.3
SALES WORKERS	32,392	5.40	38,264	5.56	5,872	18.1
DEMONSTRATORS	856	0.14	1,019	0.15	163	19.0
INSURANCE AGENTS, BROKERS, ETC.	1,433	0.24	1,469	0.21	36	2.5
Placers	3	0.00	4	0.00	1	33.3
Sales Agents, Sales Representatives, Insurance	1,430	0.24	1,465	0.21	35	2.4
REAL ESTATE AGENTS, BROKERS	449	0.07	573	0.08	124	27.6
Business Brokers	2	0.00	3	0.00	1	50.0
Real Estate Brokers	24	0.00	31	0.00	7	29.2
Sales Agents, Sales Representatives, Real Estate	423	0.07	539	0.08	116	27.4
STOCK & BOND SALES AGENTS	55	0.01	55	0.01	0	0
Sales Agents, Sales Representatives, Security	55	0.01	55	0.01	0	0
OTHER SALES WORKERS	29,599	4.94	35,148	5.11	5,549	18.7
Sales Clerks	19,589	3.27	23,135	3.36	3,546	18.1
Vendors	44	0.01	46	0.01	2	4.5
Crating & Moving Estimators	14	0.00	16	0.00	2	14.3
All Other Sales Workers	9,952	1.66	11,951	1.74	1,999	20.1

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
CLERICAL WORKERS	100,274	16.73	115,570	16.80	15,296	15.3
STENOGRAPHERS, TYPISTS & SECRETARIES	19,285	3.22	22,111	3.21	2,826	14.7
Secretaries	12,889	2.15	14,943	2.17	2,054	15.9
Stenographers	1,844	0.31	2,049	0.30	205	11.1
Typists	4,552	0.76	5,119	0.74	567	12.5
OFFICE MACHINE OPERATORS	4,437	0.74	5,220	0.76	783	17.6
Bookkeeping, Billing Operators	1,884	0.31	2,337	0.34	453	24.0
Bookkeeping/Billing Machine Operators	1,460	0.24	1,758	0.26	298	20.4
Proof Machine Operators	383	0.06	524	0.08	141	36.8
Transit Clerks	41	0.01	55	0.01	14	34.1
Computer, Peripheral Equipment Operators	1,035	0.17	1,126	0.16	91	8.8
Computer Operators	934	0.16	1,010	0.15	76	8.1
Peripheral EDP Equipment Operators	101	0.02	116	0.02	15	14.9
Duplicating Machine Operators	117	0.02	124	0.02	7	6.0
Keypunch Operators	1,029	0.17	1,230	0.18	201	19.5
Tabulating Machine Operators	81	0.01	84	0.01	3	3.7
All Other Office Machine Operators	291	0.05	319	0.05	28	9.6
OTHER CLERICAL WORKERS	76,552	12.77	88,239	12.82	11,687	15.3
Bank Tellers	2,480	0.41	3,316	0.48	836	33.7
New Accounts Tellers	190	0.03	254	0.04	64	33.7
Tellers	2,290	0.38	3,062	0.45	772	33.7
Bookkeepers	7,121	1.19	8,389	1.22	1,268	17.8
Accounting Clerks	2,488	0.42	2,766	0.40	278	11.2
Bookkeepers, Hand	4,633	0.77	5,623	0.82	990	21.4
Cashiers	9,706	1.62	11,967	1.74	2,261	23.3
Eligibility Workers, Welfare	741	0.12	773	0.11	32	4.3
Clerical Supervisors	2,243	0.37	2,519	0.37	276	12.3
Collectors, Bill & Account	421	0.07	545	0.08	124	29.5
Counter Clerks, exc. Food	1,377	0.23	1,645	0.24	268	19.5

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Car Rental Clerks	71	0.01	102	0.01	31	43.7
Desk Clerks	421	0.07	530	0.08	109	25.9
Order Clerks	740	0.12	859	0.12	119	16.1
Circulation Clerks	37	0.01	40	0.01	3	8.1
Classified Ad Clerks, Newspaper	24	0.00	26	0.00	2	8.3
Telephone Ad Takers, Newspaper	24	0.00	26	0.00	2	8.3
Desk Clerks, Bowling Floor	59	0.01	61	0.01	2	3.4
Counter Clerks, Telegraph Office	1	0.00	1	0.00	0	0
Dispatchers, Starters, Vehicle	406	0.07	419	0.06	13	3.2
Dispatchers, Police, Fire, Ambulance	406	0.07	419	0.06	13	3.2
Estimators, Investigators, NEC	564	0.09	652	0.09	88	15.6
Adjustment Clerks	117	0.02	127	0.02	10	8.5
Checking Clerks	47	0.01	61	0.01	14	29.8
Claims Clerks	248	0.04	253	0.04	5	2.0
Credit Reporters	62	0.01	95	0.01	33	53.2
Loan Closers, New Construction	83	0.01	109	0.02	26	31.3
Customer Service Representatives, Printing & Publishing	4	0.00	4	0.00	0	0
Box Estimators	3	0.00	3	0.00	0	0
Production Clerks	1,034	0.17	1,076	0.16	42	4.1
File Clerks	1,412	0.24	1,597	0.23	185	13.1
File Clerks	975	0.16	1,128	0.16	153	15.7
Personnel Clerks	422	0.07	452	0.07	30	7.1
Admissions Evaluators	15	0.00	17	0.00	2	13.3
Claim Adjusters	486	0.08	495	0.07	9	1.9
Claim Examiners, Insurance	292	0.05	296	0.04	4	1.4
Claim Adjusters	194	0.03	199	0.03	5	2.6
Library Assistants	458	0.08	525	0.08	67	14.6
Mail Carriers, Postal Service	2,711	0.45	2,719	0.40	8	0.3
Mail Handlers, exc. Postal Service	19	0.00	19	0.00	0	0
Messengers & Office Helpers	92	0.02	108	0.02	16	17.4
Messengers, Bank	6	0.00	8	0.00	2	33.3

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Messengers	86	0.01	100	0.01	14	16.3
Meter Readers, Utilities	432	0.07	436	0.06	4	0.9
Payroll, Time Keeping Clerks	1,376	0.23	1,501	0.22	125	9.1
Postal Clerks	1,013	0.17	1,016	0.15	3	0.3
Proofreaders	60	0.01	64	0.01	4	6.7
Receptionists	3,182	0.53	3,775	0.55	593	18.6
Receptionists	1,997	0.33	2,343	0.34	346	17.3
Switchboard Operators/Receptionists	1,146	0.19	1,394	0.20	248	21.6
Travel Counselors, Auto Club	39	0.01	38	0.01	- 1	- 2.6
Shipping, Receiving Clerks	4,012	0.67	4,613	0.67	601	15.0
Shipping & Receiving Clerks	2,405	0.40	2,800	0.41	395	16.4
Shipping Packers	1,601	0.27	1,806	0.26	205	12.8
Manifest Clerks	6	0.00	7	0.00	1	16.7
Statistical Clerks	293	0.05	300	0.04	7	2.4
Actuarial Clerks	1	0.00	1	0.00	0	0
Brokerage Clerks	5	0.00	5	0.00	0	0
Margin Clerks	1	0.00	1	0.00	0	0
Raters	116	0.02	121	0.02	5	4.3
Worksheet Clerks	10	0.00	10	0.00	0	0
Meter Readers, Taxi	8	0.00	7	0.00	- 1	- 12.5
Tally Clerks, Saw Mill	30	0.01	30	0.00	0	0
Court Clerks	92	0.02	95	0.01	3	3.3
Insurance Checkers	30	0.01	30	0.00	0	0
Stock Clerks, Store Keepers	6,979	1.16	8,302	1.21	1,323	19.0
Procurement Clerks	108	0.02	110	0.02	2	1.9
Stock Clerks, Stockroom, Warehouse, etc.	6,777	1.13	8,098	1.18	1,321	19.5
Yard Clerks	94	0.02	94	0.01	0	0
Telegraph Operators	150	0.03	149	0.02	- 1	- 0.7
Telephone Operators	2,285	0.38	2,556	0.37	271	11.9
Switchboard Operators	978	0.16	1,185	0.17	207	21.2
Central Office Operators	1,275	0.21	1,338	0.19	63	4.9
Private Branch Service Advisors	10	0.00	10	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Service Observers	22	0.00	23	0.00	1	4.5
Ticket, Station, Express Agents	125	0.02	137	0.02	12	9.6
Station Agents	78	0.01	78	0.01	0	0
Reservation Agents	2	0.00	2	0.00	0	0
Transportation Agents	45	0.01	57	0.01	12	26.7
Weighers	658	0.11	703	0.10	45	6.8
All Other Clerical Workers	24,716	4.12	27,923	4.06	3,207	13.0
Dividend Clerks	2	0.00	2	0.00	0	0
Call-Out Operators	40	0.01	66	0.01	26	65.0
Cancellation Clerks	7	0.00	7	0.00	0	0
Media Clerks/Estimators/Billers	2	0.00	3	0.00	1	50.0
Foreign Reporters	7	0.00	12	0.00	5	71.4
General Clerks, Office	14,395	2.40	16,363	2.38	1,968	13.7
In-File Operators	61	0.01	101	0.01	40	65.6
Securities Cashiers, Exchange	1	0.00	1	0.00	0	0
Policy Change Clerks	72	0.01	74	0.01	2	2.8
Real Estate Clerks	47	0.01	53	0.01	6	12.8
Safe Deposit Clerks	48	0.01	65	0.01	17	35.4
Statement Clerks	276	0.05	377	0.05	101	36.6
Title Searchers	2	0.00	3	0.00	1	50.0
Traffic Clerks	42	0.01	44	0.01	2	4.8
Transfer Clerks	1	0.00	1	0.00	0	0
Shade Ticket Markers	14	0.00	14	0.00	0	0
Service Representatives	276	0.05	290	0.04	14	5.1
Rate Clerks, Freight	89	0.01	97	0.01	8	9.0
Town Clerks	218	0.04	225	0.03	7	3.2
Mortgage Closing Clerks	73	0.01	94	0.01	21	28.8
Sorting Clerks, Bank	13	0.00	18	0.00	5	38.5
Insurance Clerks	8	0.00	11	0.00	3	37.5
Insurance Clerks, Medical	582	0.10	683	0.10	101	17.4
All Other Office Clerical	5,542	0.92	6,244	0.91	702	12.7
All Other Plant Clerical	2,898	0.48	3,075	0.45	177	6.1

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
CRAFTS & KINDRED WORKERS	104,721	17.47	119,122	17.31	14,401	13.8
CONSTRUCTION CRAFTS WORKERS	33,098	5.52	39,319	5.71	6,221	18.8
Carpenters	5,589	0.93	6,994	1.02	1,405	25.1
Roof Bolters	4,581	0.76	5,348	0.78	767	16.7
Brickmasons & Stonemasons	970	0.16	1,216	0.18	246	25.4
Bricklayers	748	0.12	983	0.14	235	31.4
Stonemasons	17	0.00	20	0.00	3	17.6
Refractory Materials Repairers	205	0.03	213	0.03	8	3.9
Bulldozer Operators	217	0.04	219	0.03	2	0.9
Cement & Concrete Finishers	762	0.13	956	0.14	194	25.5
Cement Masons	744	0.12	933	0.14	189	25.4
Concrete Wall Grinder Operators	6	0.00	8	0.00	2	33.3
Concrete Rubbers	6	0.00	8	0.00	2	33.3
Terrazzo Workers	6	0.00	7	0.00	1	16.7
Electricians	6,545	1.09	7,600	1.10	1,055	16.1
Excavating, Grading Machine Operators	8,604	1.44	10,110	1.47	1,506	17.5
Concrete Mixer Operators	25	0.00	33	0.00	8	32.0
Dredge Operators	10	0.00	11	0.00	1	10.0
Fine-Graders	24	0.00	29	0.00	5	20.8
Form Tamper Operators, etc.	23	0.00	27	0.00	4	17.4
Heavy Equipment Operators	8,205	1.37	9,692	1.41	1,487	18.1
Batch Plant Operators	79	0.01	81	0.01	2	2.5
Ballast Cleaning Machine Operators, etc.	238	0.04	237	0.03	- 1	- 0.4
Floor Sanding Machine Operators	3	0.00	4	0.00	1	33.3
Painters, Construction, Maintenance	1,236	0.21	1,479	0.21	243	19.7
Paperhangers	14	0.00	18	0.00	4	28.6
Plasterers	31	0.01	40	0.01	9	29.0
Plumbers & Pipefitters	3,207	0.53	3,657	0.53	450	14.0
Airdox Fitters	3	0.00	4	0.00	1	33.3
Fitters, Pipelaying	7	0.00	8	0.00	1	14.3
Plumbers &/Or Pipefitters	3,197	0.53	3,645	0.53	448	14.0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Roofers	351	0.06	452	0.07	101	28.8
Structural Steel Workers	823	0.14	1,016	0.15	193	23.5
Tile Setters	165	0.03	210	0.03	45	27.3
Tile Setters	58	0.01	73	0.01	15	25.9
Ceiling Tile Installers, Floor Layers	107	0.02	137	0.02	30	28.0
BLUE COLLAR WORKER SUPERVISORS	15,534	2.59	17,294	2.51	1,760	11.3
Dispatchers, Mine Car	266	0.04	311	0.05	45	16.9
Supervisors, Nonworking	15,268	2.55	16,983	2.47	1,715	11.2
METALWORKING CRAFTS WORKERS, EXC. MECHANICS	6,754	1.13	7,339	1.07	585	8.7
Blacksmiths	52	0.01	53	0.01	1	1.9
Boilermakers	355	0.06	409	0.06	54	15.2
Heat Treaters, Annealers, etc.	138	0.02	147	0.02	9	6.5
Forge & Hammer Operators	31	0.01	32	0.00	1	3.2
Forging Press Operators	19	0.00	20	0.00	1	5.3
Hammersmiths, Open Die	8	0.00	8	0.00	0	0
Header Operators	4	0.00	4	0.00	0	0
Job & Die Setters, Metal	323	0.05	340	0.05	17	5.3
Machine Tool Setters, Metalworking	221	0.04	235	0.03	14	6.3
Setters, Sintering Press	21	0.00	22	0.00	1	4.8
Punch Press Setters, Metal	74	0.01	76	0.01	2	2.7
Setters, Plastic Molding Machine	7	0.00	7	0.00	0	0
Machinists	2,501	0.42	2,735	0.40	234	9.4
Layout Markers, Metal	104	0.02	109	0.02	5	4.8
Machinists	2,397	0.40	2,626	0.38	229	9.6
Millwrights	1,273	0.21	1,338	0.19	65	5.1
Molders, Metal	229	0.04	237	0.03	8	3.5
Molders, Bench &/Or Floor	63	0.01	66	0.01	3	4.8
Molders, Machine (Metal)	155	0.03	160	0.02	5	3.2
Sand Slinger Operators	11	0.00	11	0.00	0	0
Pattern & Model Makers	7	0.00	7	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Model & Mold Makers, Plaster	3	0.00	3	0.00	0	0
Model Makers, Pottery	4	0.00	4	0.00	0	0
Rollers & Finishers, Metal	416	0.07	432	0.06	16	3.8
Cold Mill Operators	30	0.01	31	0.00	1	3.3
Finishers, Card Tender	7	0.00	7	0.00	0	0
Forging/Straightening Roll Operators	36	0.01	37	0.01	1	2.8
Guide Setters	67	0.01	70	0.01	3	4.5
Manipulators, Rolling	13	0.00	14	0.00	1	7.7
Rollers, Primary Mill	99	0.02	103	0.01	4	4.0
Rolling Attendants	20	0.00	21	0.00	1	5.0
Rolling Mill Operators, Rough or Finish	34	0.01	35	0.01	1	2.9
Roughers	58	0.01	60	0.01	2	3.4
Screwdown Operators	24	0.00	25	0.00	1	4.2
Speed Operators	28	0.00	29	0.00	1	3.6
Sheet Metal Workers, Tinsmiths	1,085	0.18	1,248	0.18	163	15.0
Toolmakers & Diemakers	344	0.06	361	0.05	17	4.9
MECHANICS, REPAIRERS, INSTALLERS	22,339	3.73	25,773	3.75	3,434	15.4
Air Conditioning, Heating, Refrigeration Mechanics	809	0.13	941	0.14	132	16.3
Refrigeration Mechanics, A/C Mechanics	656	0.11	748	0.11	92	14.0
Furnace Installers & Repairers	130	0.02	164	0.02	34	26.2
Oil Burner Installers, Servicers	23	0.00	29	0.00	6	26.1
Aircraft Mechanics	151	0.03	164	0.02	13	8.6
Auto Seat Cover, Top Installers	13	0.00	19	0.00	6	46.2
Auto Body Repairers	893	0.15	1,045	0.15	152	17.0
Auto Mechanics	6,502	1.08	7,625	1.11	1,123	17.3
Automotive Mechanics	6,472	1.08	7,591	1.10	1,119	17.3
Auto Repair Service Estimators	30	0.01	34	0.00	4	13.3
Data Processing Machine Mechanics	62	0.01	92	0.01	30	48.4
Farm Equipment Mechanics	3	0.00	3	0.00	0	0
Heavy Equipment Mechanics, Including Diesel	7,534	1.26	8,657	1.26	1,123	14.9

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Engineering Equipment Mechanics	1,162	0.19	1,486	0.22	324	27.9
Hydroelectric Machine Mechanics, etc.	297	0.05	301	0.04	4	1.3
Mine Machinery Mechanics	2,883	0.48	3,365	0.49	482	16.7
Marine Mechanics/Repairers	7	0.00	7	0.00	0	0
Maintenance Mechanics	3,116	0.52	3,425	0.50	309	9.9
Power Transformer Repairers	1	0.00	1	0.00	0	0
Knitting Machine Fixers	66	0.01	70	0.01	4	6.1
Machine Adjusters	2	0.00	2	0.00	0	0
Household Appliance Mechanics	833	0.14	877	0.13	44	5.3
Electric Meter Installers, etc.	142	0.02	143	0.02	1	0.7
Drapery Hangers	5	0.00	6	0.00	1	20.0
Household Appliance Installers	145	0.02	175	0.03	30	20.7
Water Meter Installers	50	0.01	51	0.01	1	2.0
Household Appliance Repairers	491	0.08	502	0.07	11	2.2
Loom Fixers	5	0.00	5	0.00	0	0
Office Machine Servicers/Cash Register Servicers	526	0.09	691	0.10	165	31.4
Radio, Television Repairers	376	0.06	467	0.07	91	24.2
Radio Mechanics	8	0.00	8	0.00	0	0
TV Servicers & Repairers, etc.	368	0.06	459	0.07	91	24.7
Railroad Car Shop Repairers	620	0.10	618	0.09	- 2	- 0.3
Electric Track Switch Maintainers	14	0.00	14	0.00	0	0
Signal Maintainers	113	0.02	113	0.02	0	0
Car Repairers	493	0.08	491	0.07	- 2	- 0.4
Other Mechanics & Repairers	4,012	0.67	4,569	0.66	557	13.9
Bicycle Repairers	23	0.00	28	0.00	5	21.7
Camera Repairers	17	0.00	16	0.00	- 1	- 5.9
Electric Motor Repairers	381	0.06	473	0.07	92	24.1
Gunsmiths	9	0.00	10	0.00	1	11.1
Coin Machine Servicers, Repairers	132	0.02	145	0.02	13	9.8
Sewing Machine Mechanics	57	0.01	58	0.01	1	1.8
Protective Signal Installers/Repairers	23	0.00	38	0.01	15	65.2
Instrument Repairers	672	0.11	693	0.10	21	3.1

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Diesel Mechanics	745	0.12	875	0.13	130	17.4
Electromedical Equipment Repairers	13	0.00	15	0.00	2	15.4
Pinsetter Mechanics, Automatic	45	0.01	46	0.01	1	2.2
Sign Erectors	61	0.01	101	0.01	40	65.6
All Other Mechanics & Repairers	1,834	0.31	2,071	0.30	237	12.9
PRINTING TRADE CRAFTS WORKERS	1,603	0.27	1,683	0.24	80	5.0
Bookbinders	229	0.04	234	0.03	5	2.2
Bookbinders	40	0.01	39	0.01	- 1	- 2.5
Setters, Bindery Machines	22	0.00	22	0.00	0	0
Bindery Workers	167	0.03	173	0.03	6	3.6
Compositors & Typesetters	556	0.09	592	0.09	36	6.5
Compositors &/Or Typesetters	11	0.00	12	0.00	1	9.1
Hand Compositors	22	0.00	23	0.00	1	4.5
Imposers & Makeup Arrangers	78	0.01	83	0.01	5	6.4
Linecasting Machine Operators	96	0.02	99	0.01	3	3.1
Linecasting Machine Tenders	14	0.00	15	0.00	1	7.1
Ludlow Machine Operators	9	0.00	10	0.00	1	11.1
Phototypesetting Machine Monitors	23	0.00	25	0.00	2	8.7
Phototypesetter Operators	15	0.00	16	0.00	1	6.7
Strike-On Machine Operators	35	0.01	38	0.01	3	8.6
Linecasting Machine Keyboard Operators	62	0.01	67	0.01	5	8.1
Monotype Keyboard Operators	4	0.00	4	0.00	0	0
Pasteup Men/Women	138	0.02	148	0.02	10	7.2
Phototypesetting Machine Keyboard Operators	34	0.01	36	0.01	2	5.9
Copy Cutters	15	0.00	16	0.00	1	6.7
Electrotypers, Stereotypers	7	0.00	8	0.00	1	14.3
Stereotypers	7	0.00	8	0.00	1	14.3
Engravers, exc. Photoengravers	110	0.02	113	0.02	3	2.7
Engravers, Glassware	101	0.02	103	0.01	2	2.0
Etchers &/Or Engravers	9	0.00	10	0.00	1	11.1
Photoengravers, Lithographers	141	0.02	149	0.02	8	5.7

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Strippers	32	0.01	33	0.00	1	3.1
Camera Operators, Printing	73	0.01	78	0.01	5	6.8
Photoengravers	36	0.01	38	0.01	2	5.6
Press & Plate Printers	560	0.09	587	0.09	27	4.8
Press Operators, Plate Printers	117	0.02	125	0.02	8	6.8
Offset Lithographic Press Operators	272	0.05	284	0.04	12	4.4
Platemakers	21	0.00	23	0.00	2	9.5
Gravure Press Operators	3	0.00	3	0.00	0	0
Letter Press Operators	125	0.02	129	0.02	4	3.2
Letterset Press Operators	17	0.00	18	0.00	1	5.9
Steel Die Press Operators	5	0.00	5	0.00	0	0
TRANSPORTATION, PUBLIC UTILITIES CRAFT WORKERS	2,997	0.50	3,106	0.45	109	3.6
Electric Power Line Installers, Repairers	1,212	0.20	1,261	0.18	49	4.0
Line Installers, Repairers	1,118	0.19	1,166	0.17	48	4.3
Trouble Shooters, Power Line	94	0.02	95	0.01	1	1.1
Locomotive Engineers	473	0.08	471	0.07	- 2	- 0.4
Hostlers	188	0.03	187	0.03	- 1	- 0.5
Locomotive Engineers	285	0.05	284	0.04	- 1	- 0.4
Power Station Operators	62	0.01	63	0.01	1	1.6
Dispatchers, Load	62	0.01	63	0.01	1	1.6
Telephone Installers, Repairers	1,250	0.21	1,311	0.19	61	4.9
Installers, Repairers, Section Maintainers	643	0.11	675	0.10	32	5.0
Station Installers	19	0.00	20	0.00	1	5.3
Telegraph Equipment Maintainers	6	0.00	6	0.00	0	0
Automatic Maintainers	1	0.00	1	0.00	0	0
Frame Wirers	48	0.01	50	0.01	2	4.2
Central Office Repairers	521	0.09	547	0.08	26	5.0
Trouble Locators, Test Desk	1	0.00	1	0.00	0	0
Telegraph Plant Maintainers	1	0.00	1	0.00	0	0
Shop Repairers, Instrument	9	0.00	9	0.00	0	0
Teletype Installers	1	0.00	1	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
OTHER CRAFTS, KINDRED WORKERS	22,396	3.74	24,608	3.58	2,212	9.9
Bakers	167	0.03	215	0.03	48	28.7
Bakers	161	0.03	209	0.03	48	29.8
Bench Hands	6	0.00	6	0.00	0	0
Cabinetmakers	201	0.03	234	0.03	33	16.4
Carpet Cutters, Carpet Layers	193	0.03	241	0.04	48	24.9
Crane, Derrick, Hoist Occupations	2,276	0.38	2,464	0.36	188	8.3
Crane, Derrick, & Hoist Operators	2,172	0.36	2,360	0.34	188	8.7
Loader Engineers	58	0.01	58	0.01	0	0
Yarder Engineers	46	0.01	46	0.01	0	0
Merchandise Displayers & Window Trimmers	64	0.01	72	0.01	8	12.5
Dental Lab Technicians	343	0.06	405	0.06	62	18.1
Furniture Finishers	104	0.02	126	0.02	22	21.2
Glaziers	157	0.03	188	0.03	31	19.7
Inspectors, Log & Lumber	79	0.01	79	0.01	0	0
Log Inspectors, Graders, Scalers	44	0.01	44	0.01	0	0
Lumber Graders	34	0.01	34	0.00	0	0
Veneer Graders	1	0.00	1	0.00	0	0
Other Inspection Occupations	3,381	0.56	3,534	0.51	153	4.5
Fire Bosses	441	0.07	515	0.07	74	16.8
Inspectors	1,977	0.33	2,021	0.29	44	2.2
Sorters, Selectors, Graders, Tobacco	2	0.00	2	0.00	0	0
Testers	960	0.16	995	0.14	35	3.6
Coating Inspectors, Pipelines	1	0.00	1	0.00	0	0
Jewelers & Watchmakers	89	0.01	106	0.02	17	19.1
Jewelers &/Or Silversmiths	41	0.01	46	0.01	5	12.2
Watchmakers	48	0.01	60	0.01	12	25.0
Millers, Grain, Flour, Feed	5	0.00	5	0.00	0	0
Motion Picture Projectionists	100	0.02	96	0.01	- 4	- 4.0
Opticians, Lens Grinders, Polishers	227	0.04	274	0.04	47	20.7
Lens Grinders	41	0.01	46	0.01	5	12.2
Opticians, Dispensing &/Or Optical Mechanics	186	0.03	228	0.03	42	22.6

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Shipfitters	2	0.00	2	0.00	0	0
Shoe Repairers	57	0.01	56	0.01	- 1	- 1.8
Shoe Repairers	41	0.01	39	0.01	- 2	- 4.9
Cobblers	16	0.00	17	0.00	1	6.3
Stationary Engineers	1,538	0.26	1,754	0.25	216	14.0
Control Room Operators, Steam	129	0.02	130	0.02	1	0.8
Auxiliary Equipment Operators	59	0.01	59	0.01	0	0
Gas Pumping Station Operators	1	0.00	1	0.00	0	0
Liquefication-Regasification Plant Operators	1	0.00	1	0.00	0	0
Oil Pumpers	257	0.04	358	0.05	101	39.3
Pumpers, Head	132	0.02	184	0.03	52	39.4
Stationary Engineers	387	0.06	414	0.06	27	7.0
Turbine Operators	13	0.00	13	0.00	0	0
Pumping Station Operators, Waterworks	22	0.00	22	0.00	0	0
Dispatchers, Relay	1	0.00	1	0.00	0	0
Station Engineers, Main Line	5	0.00	5	0.00	0	0
Water Treatment Plant Operators	409	0.07	420	0.06	11	2.7
Ship Engineers	122	0.02	146	0.02	24	19.7
Stone Cutters, Stone Carvers	40	0.01	41	0.01	1	2.5
Contour Grinders	38	0.01	39	0.01	1	2.6
Stone Cutters, Hand	2	0.00	2	0.00	0	0
Tailors	388	0.06	422	0.06	34	8.8
Alteration Tailors	373	0.06	406	0.06	33	8.8
Custom Tailors	1	0.00	1	0.00	0	0
Sample Makers	14	0.00	15	0.00	1	7.1
Upholsterers	260	0.04	279	0.04	19	7.3
Furniture Upholsterers	52	0.01	64	0.01	12	23.1
Springers	54	0.01	56	0.01	2	3.7
Upholstery Trimmers	11	0.00	11	0.00	0	0
Upholsterers	73	0.01	75	0.01	2	2.7
Upholstery Cutters	21	0.00	22	0.00	1	4.8
Casket Coverers/Casket Liners	8	0.00	8	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Mattress Makers	41	0.01	43	0.01	2	4.9
Crafts & Kindred Workers, NEC	12,725	2.12	14,015	2.04	1,290	10.1
Pipeliners	47	0.01	47	0.01	0	0
Conduit Mechanics	26	0.00	34	0.00	8	30.8
Glass Blowers	260	0.04	266	0.04	6	2.3
Machine Setters, Woodworking	18	0.00	18	0.00	0	0
Instructors, Footwear Machine	8	0.00	9	0.00	1	12.5
Instructors, Apparel & Textile Machine	22	0.00	23	0.00	1	4.5
Decorators, Luster Appliers, etc.	346	0.06	354	0.05	8	2.3
Machine Setters, Paper Goods	51	0.01	54	0.01	3	5.9
Maintenance Repairers, General Utility	4,816	0.80	5,417	0.79	601	12.5
Forming Machine Maintainers, Glass	157	0.03	160	0.02	3	1.9
Field Mechanical Meter Testers	15	0.00	19	0.00	4	26.7
Mobile Home Repairers	42	0.01	48	0.01	6	14.3
Musical Instruments Repairers	48	0.01	60	0.01	12	25.0
All Other Skilled Crafts Workers	6,869	1.15	7,506	1.09	637	9.3
OPERATIVES	108,820	18.15	120,738	17.55	11,918	11.0
OPERATIVES, EXC. TRANSPORTATION	64,483	10.76	71,063	10.33	6,580	10.2
Semiskilled Metalworking Operatives	8,740	1.46	9,613	1.40	873	10.0
Drill Press Operatives	610	0.10	651	0.09	41	6.7
Drill Press/Boring Machine Operators	567	0.09	607	0.09	40	7.1
Drill Punch Operators	3	0.00	3	0.00	0	0
Drillers, Machine/Drillers, Multiple Spindle	39	0.01	40	0.01	1	2.6
Stone Drillers	1	0.00	1	0.00	0	0
Furnace Tenders, Smelters, Pourers	647	0.11	671	0.10	24	3.7
Blast Furnace Keepers	107	0.02	111	0.02	4	3.7
Casters, Ingots & Pigs	8	0.00	8	0.00	0	0
Cupola Tappers	1	0.00	1	0.00	0	0
Skimmers, Reverberatory Furnace	25	0.00	26	0.00	1	4.0
Steel Pourer Helpers	160	0.03	166	0.02	6	3.8

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Stove Tenders	31	0.01	32	0.00	1	3.2
Pourers, Metal	116	0.02	120	0.02	4	3.4
Furnace Chargers	158	0.03	164	0.02	6	3.8
Heating Pit Chargers	41	0.01	43	0.01	2	4.9
Grinding/Abrading Machine Operators, Metal	374	0.06	399	0.06	25	6.7
Heaters, Metal	83	0.01	85	0.01	2	2.4
Lathe, Milling Machine Operatives	958	0.16	1,031	0.15	73	7.6
Veneer Lathe Operators	9	0.00	9	0.00	0	0
Lathe Operators, Wood	11	0.00	11	0.00	0	0
Lathe/Turning Machine Operators, Metal	578	0.10	627	0.09	49	8.5
Milling/Planing Machine Operators	335	0.06	359	0.05	24	7.2
Shaper &/Or Router Operators	25	0.00	25	0.00	0	0
Metal Platers	350	0.06	365	0.05	15	4.3
Electroplaters	252	0.04	264	0.04	12	4.8
Dip Platers, Nonelectrolytic	98	0.02	101	0.01	3	3.1
Other Precision Machine Operatives	632	0.11	694	0.10	62	9.8
Boring Machine Operators, Wood	14	0.00	14	0.00	0	0
Machine Tool Operators, Combination	411	0.07	454	0.07	43	10.5
Machine Tool Operators, Numerical Control	55	0.01	60	0.01	5	9.1
Wood Machinists	85	0.01	93	0.01	8	9.4
Machine Tool Operators, Tool Room	67	0.01	73	0.01	6	9.0
Punch, Stamping Press Operatives	642	0.11	675	0.10	33	5.1
Punch Press Operators, Metal	527	0.09	554	0.08	27	5.1
Punch Press Operators, Plastics	21	0.00	22	0.00	1	4.8
Power Brake, Bending Machine Operators, Metal	94	0.02	99	0.01	5	5.3
Welders & Flame Cutters	4,444	0.74	5,042	0.73	598	13.5
Semiskilled Textile Operatives	275	0.05	290	0.04	15	5.5
Knitters, Loopers, & Toppers	125	0.02	133	0.02	8	6.4
Knitting Machine Operators	84	0.01	89	0.01	5	6.0
Loopers, Hosiery	41	0.01	44	0.01	3	7.3
Spinners, Twisters, & Winders	23	0.00	24	0.00	1	4.3
Beam Warper Tenders &/Or Beamers	2	0.00	2	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Beamers, Hand	7	0.00	7	0.00	0	0
Beamers, Machine	11	0.00	12	0.00	1	9.1
Quilling Machine Operators	2	0.00	2	0.00	0	0
Warp Tying Machine Tenders	1	0.00	1	0.00	0	0
Weavers	17	0.00	18	0.00	1	5.9
Smash Hands	2	0.00	2	0.00	0	0
Weavers	15	0.00	16	0.00	1	6.7
Other Textile Operatives	110	0.02	115	0.02	5	4.5
Boarding Machine Operators, Hosiery	41	0.01	44	0.01	3	7.3
Harness Builders, Loom Changers, etc.	7	0.00	7	0.00	0	0
Rubber Covering Machine Operators	2	0.00	2	0.00	0	0
Folders, Hand	60	0.01	62	0.01	2	3.3
Semiskilled Packing, Inspecting Operatives	5,404	0.90	5,849	0.85	445	8.2
Checkers, Examiners, etc., Manufacturing	1,585	0.26	1,620	0.24	35	2.2
Selectors, Glassware	1,585	0.26	1,620	0.24	35	2.2
Graders & Sorters, Manufacturing	26	0.00	27	0.00	1	3.8
Sorters, Burned Products	8	0.00	8	0.00	0	0
Sorters, Leather	15	0.00	16	0.00	1	6.7
Sorters, Upholstery Parts	3	0.00	3	0.00	0	0
Packers, Wrappers, exc. Meat Products	3,793	0.63	4,202	0.61	409	10.8
Production Packagers	2,998	0.50	3,194	0.46	196	6.5
Bundlers	128	0.02	133	0.02	5	3.9
Baggers	664	0.11	872	0.13	208	31.3
Wrapping Machine Operators	3	0.00	3	0.00	0	0
Other Operatives, exc. Transport	50,064	8.35	55,311	8.04	5,247	10.5
Asbestos & Insulation Workers	475	0.08	554	0.08	79	16.6
Assemblers	3,210	0.54	3,318	0.48	108	3.4
Mobile Home Set-Up Operators	3	0.00	3	0.00	0	0
Assemblers, Hand	2,742	0.46	2,857	0.42	115	4.2
Plastic Top Installers	3	0.00	3	0.00	0	0
Spring Machine Operators	93	0.02	96	0.01	3	3.2
Wirers, Electronic	327	0.05	318	0.05	- 9	- 2.8

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Coil Finishers	42	0.01	41	0.01	- 1	- 2.4
Blasters	732	0.12	854	0.12	122	16.7
Blasters, Mining & Quarrying	654	0.11	760	0.11	106	16.2
Blasters, Construction	72	0.01	85	0.01	13	18.1
Shooters or Shooters, Seismograph	6	0.00	9	0.00	3	50.0
Surveyors Helpers	826	0.14	1,065	0.15	239	28.9
Clothing Ironers & Pressers	979	0.16	920	0.13	- 59	- 6.0
Pressers, Hand	152	0.03	145	0.02	- 7	- 4.6
Pressers, Machine	280	0.05	235	0.03	- 45	- 16.1
Pressers, Machine, Laundry	492	0.08	483	0.07	- 9	- 1.8
Shapers & Pressers	55	0.01	57	0.01	2	3.6
Cutting Operatives, NEC	372	0.06	383	0.06	11	3.0
Bias Machine Operators	3	0.00	3	0.00	0	0
Binder Layers, Cigar	1	0.00	1	0.00	0	0
Automatic Clippers, Veneer	12	0.00	12	0.00	0	0
Corner Cutters	5	0.00	5	0.00	0	0
Corrugator-Knife Operators	7	0.00	7	0.00	0	0
Glass Cut-Off Machine Operators	146	0.02	150	0.02	4	2.7
Glass Cutters, Machine	30	0.01	31	0.00	1	3.3
Pattern Cutters	7	0.00	7	0.00	0	0
Rubber Goods Cutter-Finisher Operators	43	0.01	45	0.01	2	-.7
Second Cutters, Hand	53	0.01	55	0.01	2	3.8
Slitter-Scorer-Cut-Off Operators	10	0.00	11	0.00	1	11.0
Splitters	1	0.00	1	0.00	0	0
Stencil Cutters	1	0.00	1	0.00	0	0
Tenoner Operators	8	0.00	8	0.00	0	0
Trimmers, Plastics	3	0.00	3	0.00	0	0
Veneer Jointer Operators	6	0.00	6	0.00	0	0
Cutting Machine Operators, Food	17	0.00	18	0.00	1	5.9
Planer Operators	19	0.00	19	0.00	0	0
Dressmakers, exc. Factory	246	0.04	278	0.04	32	13.0
Drillers, Earth	2,736	0.46	3,320	0.48	584	21.3

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Auger Machine Operators	109	0.02	127	0.02	18	16.5
Cable Drillers	39	0.01	54	0.01	15	38.5
Drillers, Machine	1,874	0.31	2,185	0.32	311	16.6
Hydraulic Operators	167	0.03	195	0.03	28	16.8
Rotary Drill Operators	195	0.03	268	0.04	73	37.4
Rotary Drill Operator Helpers	352	0.06	491	0.07	139	39.5
Dry Wall Installers, Lathers	204	0.03	264	0.04	60	29.4
Dry Wall Applicators	98	0.02	127	0.02	29	29.6
Lathers	21	0.00	27	0.00	6	28.6
Tapers	85	0.01	110	0.02	25	29.4
Dyers	16	0.00	17	0.00	1	6.3
Dye Tub Operators, Random Dyers, etc.	16	0.00	17	0.00	1	6.3
Filers, Polishers, Sanders, Buffers	891	0.15	946	0.14	55	6.2
Filers, Grinders, Buffers, Chippers	517	0.09	564	0.08	47	9.1
Sandblasters/Shotblasters	56	0.01	57	0.01	1	1.8
Die Polishers, Wire &/Or Tubes	6	0.00	6	0.00	0	0
Glass Grinders/Watch Crystal Edge Grinders	217	0.04	222	0.03	5	2.3
Hand Edgers/Belt Seamers	49	0.01	50	0.01	1	2.0
Planers, Stone	1	0.00	1	0.00	0	0
Polishers, Glass &/Or Blockers	32	0.01	33	0.00	1	3.1
Reeling Machine Operators	1	0.00	1	0.00	0	0
Stone Cutters, Machine	1	0.00	1	0.00	0	0
Stopper Grinders	11	0.00	11	0.00	0	0
Garage Workers, Gas Station Attendants	3,578	0.60	4,064	0.59	486	13.6
Marine Service Station Attendants	1	0.00	1	0.00	0	0
Fuel Pump Attendants, Lubricators	3,376	0.56	3,836	0.56	460	13.6
Tire Changers	201	0.03	227	0.03	26	12.9
Laundry, Drycleaning Operators, NEC	1,025	0.17	991	0.14	- 34	- 3.3
Markers, Classifiers, Assemblers	173	0.03	142	0.02	- 31	- 17.9
Spotters, Drycleaning	17	0.00	12	0.00	- 5	- 29.4
Spotters, Washable Materials	15	0.00	11	0.00	- 4	- 26.7
Washers, Machine &/Or Starchers	331	0.06	362	0.05	31	9.4

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Tumbler Operators	14	0.00	10	0.00	- 4	- 28.6
Drycleaning Machine Operators	144	0.02	105	0.02	- 39	- 27.1
Drycleaners, Hand	6	0.00	5	0.00	- 1	- 16.7
Laundry Operators, Small Establishments	183	0.03	219	0.03	36	19.7
Rug Cleaners, Hand	27	0.00	26	0.00	- 1	- 3.7
Rug Cleaners, Machine	20	0.00	15	0.00	- 5	- 25.0
Folders, Laundry	62	0.01	50	0.01	- 12	- 19.4
Furniture Cleaners	5	0.00	5	0.00	0	0
Washers, Synthetic Fibers	28	0.00	29	0.00	1	3.6
Meat Cutters, Butchers	38	0.01	40	0.01	2	5.3
Boners, Meat	14	0.00	15	0.00	1	7.1
Butchers, All-Around	17	0.00	18	0.00	1	5.9
Carcass Splitters	7	0.00	7	0.00	0	0
Mine Operatives, NEC	14,134	2.36	16,606	2.41	2,472	17.5
Headers, Bottomers, Car Droppers	336	0.06	392	0.06	56	16.7
Brattice Builders	953	0.16	1,113	0.16	160	16.8
Bulk Station Operators	6	0.00	8	0.00	2	33.3
Casers	4	0.00	6	0.00	2	50.0
Cementers, Oil Well	4	0.00	6	0.00	2	50.0
Coal Washers	215	0.04	251	0.04	36	16.7
Continuous Mining Machine Operators	2,301	0.38	2,686	0.39	385	16.7
Cutting Machine Operators	890	0.15	1,039	0.15	149	16.7
Derrick Operators, Petroleum & Gas	104	0.02	145	0.02	41	39.4
Drier Operators, Coal or Ore	88	0.01	103	0.01	15	17.0
Gagers	14	0.00	14	0.00	0	0
Lamp Keepers, Repairers	354	0.06	413	0.06	59	16.7
Loading Machine Operators	1,393	0.23	1,626	0.24	233	16.7
Long-Wall Miner Operators	111	0.02	130	0.02	19	17.1
Long-Wall Miner Operator Helpers	228	0.04	266	0.04	38	16.7
Rock Splitters, Quarry	6	0.00	6	0.00	0	0
Roustabouts	511	0.09	712	0.10	201	39.3
Service Unit Operators, Oil Well	9	0.00	13	0.00	4	44.4

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Shaker Tenders	75	0.01	88	0.01	13	17.3
Shuttle Car Operators	4,295	0.72	5,014	0.73	719	16.7
Tipple Operators	798	0.13	931	0.14	133	16.7
Panelboard Operators, Grinding Mill Operators	214	0.04	240	0.03	26	12.1
Rock-Dust Sprayers	779	0.13	909	0.13	130	16.7
Separation Tenders	103	0.02	120	0.02	17	16.5
Mill &/Or Grinder Operators, Minerals	310	0.05	341	0.05	31	10.0
Crushing or Ore Stamping Machine Operators	33	0.01	34	0.00	1	3.0
Mixing Operatives	183	0.03	195	0.03	12	6.6
Asphalt Blenders	2	0.00	3	0.00	1	50.0
Asphalt Mixing Machine Tenders	13	0.00	16	0.00	3	23.1
Asphalt-Plant Operators	12	0.00	14	0.00	2	16.7
Compounders	4	0.00	5	0.00	1	25.0
Mixer Operators, Hot Metal	18	0.00	19	0.00	1	5.6
Sand Cutter Operators	2	0.00	2	0.00	0	0
Sand Mixers, Hand or Machine	9	0.00	9	0.00	0	0
Seasoning Mixers	1	0.00	1	0.00	0	0
Tinters	25	0.00	26	0.00	1	4.0
Mixers, Food & Tobacco	53	0.01	55	0.01	2	3.8
Mixers, Ore & Metals	44	0.01	45	0.01	1	2.3
Oilers	524	0.09	594	0.09	70	13.4
Painters, Manufactured Articles	454	0.08	497	0.07	43	9.5
Painters, Automotive	117	0.02	142	0.02	25	21.4
Painters, Production	337	0.06	355	0.05	18	5.3
Photographic Process Workers	123	0.02	140	0.02	17	13.8
Developers, Projection Printers	44	0.01	56	0.01	12	27.3
Negative Cutters &/Or Spotters	6	0.00	6	0.00	0	0
Multiple Photo Printer Operators	17	0.00	21	0.00	4	23.5
Print Developers, Machine	4	0.00	4	0.00	0	0
Photo Checkers & Assemblers	17	0.00	19	0.00	2	11.8
Photographer Helpers	9	0.00	9	0.00	0	0
Copy Camera Operators	1	0.00	1	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Silk Screen Makers	9	0.00	9	0.00	0	0
Photo Retouchers, Airbrush Artists	14	0.00	13	0.00	- 1	- 7.1
All Other Darkroom Workers	2	0.00	2	0.00	0	0
Riveters & Fasteners	52	0.01	53	0.01	1	1.9
Nailing Machine Operators	32	0.01	32	0.00	0	0
Staplers, Mattress & Bedspring	20	0.00	21	0.00	1	5.0
Sailors & Deckhands	420	0.07	494	0.07	74	17.6
Boatswains	52	0.01	61	0.01	9	17.3
Able Seamen	129	0.02	154	0.02	25	19.4
Ordinary Seamen	239	0.04	279	0.04	40	16.7
Sawyers	774	0.13	787	0.11	13	1.7
Band Scroll Saw Operators	5	0.00	5	0.00	0	0
Bolters	15	0.00	15	0.00	0	0
Cut-Off Saw Operators, Lumber	78	0.01	78	0.01	0	0
Cut-Off Sawyers, Log	62	0.01	63	0.01	1	1.6
Edgers, Automatic &/Or Pony	107	0.02	108	0.02	1	0.9
Gang Sawyers	17	0.00	17	0.00	0	0
Head Sawyers	99	0.02	100	0.01	1	1.0
Resawyers	18	0.00	18	0.00	0	0
Ripsaw Operators	71	0.01	71	0.01	0	0
Sawyers, Metal	224	0.04	233	0.03	9	4.0
Sawyers, Stone	3	0.00	3	0.00	0	0
Sawyers, Plastics	6	0.00	6	0.00	0	0
Trim Saw Operators	61	0.01	62	0.01	1	1.6
Variety Saw Operators	8	0.00	8	0.00	0	0
Sewers & Stitchers	4,534	0.76	4,706	0.68	172	3.8
Menders	30	0.01	22	0.00	- 8	- 26.7
Sewing Machine Operators, Regular Equipment, Nongarment	410	0.07	425	0.06	15	3.7
Bag Sewers	6	0.00	6	0.00	0	0
Garment Repairers	29	0.00	29	0.00	0	0
Menders, Cloth	10	0.00	11	0.00	1	10.0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Sewing Machine Operators, Special Equipment, Nongarment	74	0.01	86	0.01	12	16.2
Shoe Parts Sewers, Hand	25	0.00	27	0.00	2	8.0
Sewing Machine Operators, Special Equipment, Garment	491	0.08	510	0.07	19	3.9
Sewing Machine Operators, Regular Equipment, Garment	3,459	0.58	3,590	0.52	131	3.8
Shoemaking Machine Operators	1,052	0.18	1,132	0.16	80	7.6
Assemblers For Puller-Over	24	0.00	26	0.00	2	8.3
Bed Lasters	11	0.00	12	0.00	1	9.1
Bottom Fillers	12	0.00	13	0.00	1	8.3
Cementers, Machine Joiner	41	0.01	44	0.01	3	7.3
Perforator Operators	12	0.00	13	0.00	1	8.3
Folders, Machine	16	0.00	17	0.00	1	6.3
Heel Attachers	13	0.00	14	0.00	1	7.7
Heel Breasters, Leather	4	0.00	4	0.00	0	0
Heel Builders, Hand or Machine	3	0.00	3	0.00	0	0
Heel-Seat Lasters, Machine	12	0.00	13	0.00	1	8.3
Heel-Seat Fitters, Machine	4	0.00	4	0.00	0	0
Inkers, Hand or Machine	33	0.01	35	0.01	2	6.1
Joint Cutters, Machine	3	0.00	3	0.00	0	0
Lasting Machine Operators	5	0.00	5	0.00	0	0
Pullers-Over	10	0.00	11	0.00	1	10.0
Repairers, Shoe Finish	37	0.01	40	0.01	3	8.1
Rough Rounders, Machine	10	0.00	11	0.00	1	10.0
Seam Rubbing Machine Operators	10	0.00	11	0.00	1	10.0
Sole Levelers, Machine	7	0.00	8	0.00	1	14.3
Stitchdown Thread Lasters	2	0.00	2	0.00	0	0
Stitchers, Special Machine	71	0.01	77	0.01	6	8.5
Stitchers, Standard Machine	420	0.07	453	0.07	33	7.9
Stitchers, Utility	36	0.01	39	0.01	3	8.3
Thermalasting Machine Operators	5	0.00	5	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Skivers	29	0.00	31	0.00	2	6.9
Trimmers, Machine	76	0.01	80	0.01	4	5.3
Vamp Creasers	7	0.00	8	0.00	1	14.3
Fasteners, Machine	24	0.00	26	0.00	2	8.3
Cementers, Pasters, Backers, etc.	96	0.02	104	0.02	8	8.3
Molders, Shoe Parts	4	0.00	4	0.00	0	0
Pulling & Lasting Machine Operators	15	0.00	16	0.00	1	6.7
Furnace Tenders, Stokers, exc. Metal	776	0.13	816	0.12	40	5.2
Stationary Boiler Firers	438	0.07	476	0.07	38	8.7
Batch, Furnace, Tank Operators, Glass	186	0.03	190	0.03	4	2.2
Firers, Petroleum Refining	8	0.00	10	0.00	2	25.0
Furnace Combustion Analysts	10	0.00	10	0.00	0	0
Kiln Operators, Minerals	114	0.02	110	0.02	- 4	- 3.5
Kiln Operators, Lumber	6	0.00	6	0.00	0	0
Kiln Tenders, Glass	1	0.00	1	0.00	0	0
Rotary Kiln Operators	12	0.00	12	0.00	0	0
Firers, Marine	1	0.00	1	0.00	0	0
Winding Operatives, NEC	146	0.02	149	0.02	3	2.1
Paper Reel Operatives, Rewinder Operatives	13	0.00	13	0.00	0	0
Coil Winders	133	0.02	136	0.02	3	2.3
Miscellaneous Machine Operators, Meat & Dairy Products	108	0.02	112	0.02	4	3.7
Press Operators, Meat	2	0.00	2	0.00	0	0
Skin Peeling Machine Operators	6	0.00	6	0.00	0	0
Casing Finishers &/Or Stuffers	8	0.00	8	0.00	0	0
Novelty Workers	2	0.00	2	0.00	0	0
Flavor Room Workers, Freezer Operators	11	0.00	11	0.00	0	0
Dairy Processing Equipment Operators	44	0.01	46	0.01	2	4.5
Cheesemakers	2	0.00	2	0.00	0	0
Meat Grinders	12	0.00	13	0.00	1	8.3
Centrifuge Operators, Food	1	0.00	1	0.00	0	0
Cooks &/Or Cookers	20	0.00	21	0.00	1	5.0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Miscellaneous Machine Operators, All Other	234	0.04	277	0.04	43	18.4
Food Products	1	0.00	1	0.00	0	0
Icemakers	1	0.00	1	0.00	0	0
Roasters, Coffee	1	0.00	1	0.00	0	0
Sugar Boilers	4	0.00	4	0.00	0	0
Feed Pellet Mill Operators	4	0.00	4	0.00	0	0
Grain Receivers	128	0.02	167	0.02	39	30.5
Doughnut Makers/Doughnut Machine Operators	25	0.00	26	0.00	1	4.0
Dividing Machine Operators, etc.	3	0.00	3	0.00	0	0
Cooling Machine Operators	39	0.01	41	0.01	2	5.1
Oven Operators	12	0.00	13	0.00	1	8.3
Pan Greasers, Machine	4	0.00	3	0.00	- 1	- 25.0
Drier Operators	12	0.00	13	0.00	1	8.3
Batter Scalers	33	0.01	27	0.00	- 6	- 18.2
Miscellaneous Machine Operators, Tobacco	6	0.00	5	0.00	- 1	- 16.7
Stemmers, Machine	1	0.00	1	0.00	0	0
Threshers	23	0.00	18	0.00	- 5	- 21.7
Wrapper Layers	1	0.00	1	0.00	0	0
Bunch Makers, Machine	1	0.00	1	0.00	0	0
Casing Machine Operators	1	0.00	1	0.00	0	0
Stem Roller or Crusher Operators	5	0.00	5	0.00	0	0
Miscellaneous Machine Operators, Textile Mill Products	1	0.00	1	0.00	0	0
Calender Operators, Cloth Pressing	1	0.00	1	0.00	0	0
Ending Machine Operators	3	0.00	3	0.00	0	0
Folding Machine Operators	86	0.01	86	0.01	0	0
Miscellaneous Machine Operators, Lumber Products, Furniture	13	0.00	13	0.00	0	0
Veneer Driers	4	0.00	4	0.00	0	0
Hot Plate Plywood Press Operators	6	0.00	6	0.00	0	0
Edge Gluers	39	0.01	39	0.01	0	0
Power Barker Operators						

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Dowel Machine Operators	3	0.00	3	0.00	0	0
Dado Operators	6	0.00	6	0.00	0	0
Gluing Machine Operators	14	0.00	14	0.00	0	0
Laminating Machine Operators, Furniture	1	0.00	1	0.00	0	0
Miscellaneous Machine Operators, Paper, Allied Products	188	0.03	194	0.03	6	3.2
Pulpers	25	0.00	26	0.00	1	4.0
Back Tenders	9	0.00	9	0.00	0	0
Cylinder Machine Tenders	9	0.00	9	0.00	0	0
Coater Operators, Off-Machine	4	0.00	4	0.00	0	0
Printer-Slotter Operators	16	0.00	17	0.00	1	6.3
Scorers	8	0.00	8	0.00	0	0
Taping Machine Operators	8	0.00	8	0.00	0	0
Tube Machine Operators, Bags	5	0.00	5	0.00	0	0
Flexo-Folder-Gluer Operators	7	0.00	7	0.00	0	0
Envelope Machine Operators	3	0.00	3	0.00	0	0
Embossers	3	0.00	3	0.00	0	0
Four-Corners-Stayer Machine Operators	1	0.00	1	0.00	0	0
Folding Machine Operators, Paper	15	0.00	16	0.00	1	6.7
Folding Machine Feeders	4	0.00	4	0.00	0	0
Bag Machine Operators	13	0.00	14	0.00	1	7.7
Bottoming Machine Operators, etc.	8	0.00	8	0.00	0	0
Box Makers, Paperboard	8	0.00	8	0.00	0	0
Cutting & Creasing Press Operators	1	0.00	1	0.00	0	0
Box Cover Strippers	5	0.00	5	0.00	0	0
Corrugator Operators	14	0.00	15	0.00	1	7.1
Scrappers/Strippers	3	0.00	3	0.00	0	0
Fourth/Fifth Hands, Paper Machine	16	0.00	17	0.00	1	6.3
Slotter Operators	3	0.00	3	0.00	0	0
Miscellaneous Machine Operators, Chemical and Allied Products	4,820	0.80	5,014	0.73	194	4.0
Pushers	41	0.01	43	0.01	2	4.9
Shredder Operators, Cellulose	39	0.01	40	0.01	1	2.6

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Spinners, Synthetic Filaments	172	0.03	178	0.03	6	3.5
Bath Makers	11	0.00	11	0.00	0	0
Evaporator Operators, Chemical	22	0.00	23	0.00	1	4.5
Kettle Operators, Adhesive	3	0.00	3	0.00	0	0
Powder Cutting Operators, etc.	1	0.00	1	0.00	0	0
Varnish Makers	6	0.00	6	0.00	0	0
Wash Screen Operators, Explosives	1	0.00	1	0.00	0	0
Dynamite Cartridge Crimpers	1	0.00	1	0.00	0	0
Graining Press Operators	1	0.00	1	0.00	0	0
Carbon Black Makers	1	0.00	1	0.00	0	0
Coaters, Pill	7	0.00	7	0.00	0	0
Pumpers, Liquids	267	0.04	308	0.04	41	15.4
Still Operators, Batch or Continuous	19	0.00	19	0.00	0	0
Chemical Operator Helpers	221	0.04	228	0.03	7	3.2
Chemical Operators A	2,935	0.49	3,036	0.44	101	3.4
Chemical Operators B	702	0.12	725	0.11	23	3.3
Grinder Operators, Chemical	72	0.01	74	0.01	2	2.8
Drier Operators, Chemical, Plastics, Rubber	33	0.01	34	0.00	1	3.0
Chief Operators	265	0.04	274	0.04	9	3.4
Miscellaneous Machine Operators, Petroleum, Coal Products	8	0.00	9	0.00	1	12.5
Asphalt-Plant Drier Operators	8	0.00	9	0.00	1	12.5
Miscellaneous Machine Operators, Rubber, Miscellaneous Plastics	784	0.13	801	0.12	17	2.2
Lead Press Operators	4	0.00	4	0.00	0	0
Lead Stripping Machine Operators	1	0.00	1	0.00	0	0
Rubber Mill Operators	27	0.00	28	0.00	1	3.7
Press Operators, Devulcanized Scrap Rubber	4	0.00	4	0.00	0	0
Refiner Operators, Rubber	1	0.00	1	0.00	0	0
Roller Builders, Rubber	3	0.00	3	0.00	0	0
Rubber Grinder-Finisher Operators	9	0.00	9	0.00	0	0
Splicers	2	0.00	2	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Splitting Machine Tenders	1	0.00	1	0.00	0	0
Tire Builders	1	0.00	1	0.00	0	0
Splicers, Rubber Products	1	0.00	1	0.00	0	0
Tuber Machine Operators	10	0.00	10	0.00	0	0
Watchcase Vulcanizer Tenders	1	0.00	1	0.00	0	0
Press Tenders, Rubber Goods	100	0.02	103	0.01	3	3.0
Grinders, Rubber Goods	6	0.00	6	0.00	0	0
Braiding Machine Tenders	10	0.00	10	0.00	0	0
Calender Operators	11	0.00	11	0.00	0	0
Belt Builders	23	0.00	24	0.00	1	4.3
Dipping Machine Operators	5	0.00	5	0.00	0	0
Finishers, Machine	3	0.00	3	0.00	0	0
Compression &/Or Injection Molding Machine Operators, Plastics	217	0.04	218	0.03	1	0.5
Extruder Operator Helpers	342	0.06	353	0.05	11	3.2
Automatic Rubber Hose Vulcanizer Machine Operators	2	0.00	2	0.00	0	0
Miscellaneous Machine Operators, Leather & Leather Goods	20	0.00	21	0.00	1	5.0
Limers	6	0.00	6	0.00	0	0
Tanning-Liquor Makers	4	0.00	4	0.00	0	0
Burnishers	10	0.00	11	0.00	1	10.0
Miscellaneous Machine Operators, Stone, Clay and Glass	1,679	0.28	1,684	0.24	5	0.3
Lehr Tenders	167	0.03	170	0.02	3	1.8
Molding Machine Operators, Pressers	60	0.01	61	0.01	1	1.7
Ware Finishers &/Or Foot Casters	171	0.03	175	0.03	4	2.3
Glazing Machine Operators	42	0.01	43	0.01	1	2.4
Glaziers, Stained Glass/Joiners	6	0.00	6	0.00	0	0
Forming Machine Operators, Glass Container	326	0.05	333	0.05	7	2.1
Drawing-Kiln/Glass Rolling Machine Operators	72	0.01	74	0.01	2	2.8
Bevelers	8	0.00	8	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Jigger Operators	20	0.00	18	0.00	- 2	- 10.0
Refactory Grinder Operators	6	0.00	6	0.00	0	0
Spray Machine Operators	31	0.01	29	0.00	- 2	- 6.5
Press Operators	151	0.03	144	0.02	- 7	- 4.6
Calciners, Gypsum	1	0.00	1	0.00	0	0
Dry Pan Operators	9	0.00	9	0.00	0	0
Glaze Makers	14	0.00	13	0.00	- 1	- 7.1
Hydrator Operators, Lime	1	0.00	1	0.00	0	0
Millers, Cement	12	0.00	12	0.00	0	0
Drying Machine Operators	10	0.00	9	0.00	- 1	- 10.0
Cage Makers, Hand or Machine	12	0.00	12	0.00	0	0
Blockmaking Machine Operators	64	0.01	65	0.01	1	1.6
Dippers	80	0.01	74	0.01	- 6	- 7.5
Sand Blasters, Stone	1	0.00	1	0.00	0	0
Brick & Tile Making Machine Operators	74	0.01	73	0.01	- 1	- 1.4
Concrete Vault Makers	35	0.01	36	0.01	1	2.9
Millers, Clay	21	0.00	19	0.00	- 2	- 9.5
Floor Workers, Glass	285	0.05	292	0.04	7	2.5
Miscellaneous Machine Operators, Primary Metals	786	0.13	810	0.12	24	3.1
Operators, Door Machine	65	0.01	68	0.01	3	4.6
Pump Operators, By-Products	115	0.02	120	0.02	5	4.3
Roll Builders	38	0.01	39	0.01	1	2.6
Heaters, Coke Production	78	0.01	81	0.01	3	3.8
Coilers, Winders, &/Or Spoolers	110	0.02	115	0.02	5	4.5
Mold Makers, Pottery	21	0.00	19	0.00	- 2	- 9.5
Stretcher-Leveler Operators	2	0.00	2	0.00	0	0
Striping Machine Operators, Insulated Wire	15	0.00	16	0.00	1	6.7
Draw-Bench Operators, Tube Drawers	104	0.02	108	0.02	4	3.8
Metal Controllers	3	0.00	3	0.00	0	0
Coremakers, Machine	35	0.01	36	0.01	1	2.9
Extrusion Press Operators, Hot Billets	4	0.00	4	0.00	0	0
Briquetting Machine Operators	8	0.00	8	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-198 NUMBER	Change, 1976-198 PERCEN
Alodize Machine Operators	38	0.01	39	0.01	1	2.6
Insulating Extruding Machine Operators	2	0.00	2	0.00	0	0
Picklers, Continuous Pickling Line	91	0.02	94	0.01	3	3.3
Impregnators, Electronic	7	0.00	7	0.00	0	0
Coil Tapers, Hand or Machine	45	0.01	44	0.01	- 1	- 2.2
Nail Making, Assembling Machine Operators, etc.	5	0.00	5	0.00	0	0
Miscellaneous Machine Operators, Manufacturing, NEC	140	0.02	142	0.02	2	1.4
Coremakers, Hand, Bench, Floor	33	0.01	34	0.00	1	3.0
Chippers	41	0.01	41	0.01	0	0
Gluers	7	0.00	7	0.00	0	0
Vulcanizers, Footwear	32	0.01	33	0.00	1	3.1
Laminators, Preforms	1	0.00	1	0.00	0	0
Press Operators, Plastics	1	0.00	1	0.00	0	0
Baggers, Plastics	1	0.00	1	0.00	0	0
Hose Makers	7	0.00	7	0.00	0	0
Encapsulators	3	0.00	3	0.00	0	0
Silk Screen Printers, Electronic	1	0.00	1	0.00	0	0
Cutter &/Or Grinder Operators	1	0.00	1	0.00	0	0
Soabar Operators	12	0.00	12	0.00	0	0
Miscellaneous Machine Operators, Nonmanufacturing	380	0.06	480	0.07	100	26.3
Tire Fabricators, Repairers	232	0.04	318	0.05	86	37.1
Ink Workers	1	0.00	1	0.00	0	0
Photolettering Machine Operators	12	0.00	13	0.00	1	8.3
Refinery Operators, Petroleum	41	0.01	52	0.01	11	26.8
Decorating Machine Operators	86	0.01	88	0.01	2	2.3
Granulator Machine Operators	8	0.00	8	0.00	0	0
Operatives, NEC, Durable Goods	1,156	0.19	1,163	0.17	7	0.6
Banders, Hand	24	0.00	25	0.00	1	4.2
Bench Hands, Jewelry	1	0.00	1	0.00	0	0
Breakers	135	0.02	139	0.02	4	3.0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Catchers	55	0.01	57	0.01	2	3.6
Casters, Pottery & Porcelain	42	0.01	39	0.01	- 3	- 7.1
Colorers, Tile	14	0.00	13	0.00	- 1	- 7.1
Concrete Pipe Makers	8	0.00	8	0.00	0	0
Decal Appliers	21	0.00	19	0.00	- 2	- 9.5
Decorating Equipment Setters	32	0.01	32	0.00	0	0
Finishers, Hand	1	0.00	1	0.00	0	0
Gatherers	332	0.06	339	0.05	7	2.1
Handlers	17	0.00	16	0.00	- 1	- 5.9
Mill Hands, Plate Mill	11	0.00	11	0.00	0	0
Mold Closers	5	0.00	5	0.00	0	0
Refractory Molders, Hand	9	0.00	9	0.00	0	0
Pattern Gaters	9	0.00	9	0.00	0	0
Rolling Mill Operator Helpers	50	0.01	52	0.01	2	4.0
Table Operators, Steel	10	0.00	10	0.00	0	0
Transfer Controllers, Saw Mill	9	0.00	9	0.00	0	0
Clay Turners	82	0.01	75	0.01	- 7	- 8.5
Warm-In Workers	254	0.04	259	0.04	5	2.0
Wax Pattern Workers	2	0.00	2	0.00	0	0
Pipe Strippers	8	0.00	8	0.00	0	0
Layout Markers, Wood	3	0.00	3	0.00	0	0
Veneer Repairers, Hand	9	0.00	9	0.00	0	0
Mold Makers	13	0.00	13	0.00	0	0
Operatives, NEC, Nondurable Goods	946	0.16	1,004	0.15	58	6.1
Curers, Rubber Goods	13	0.00	13	0.00	0	0
Baker Helpers	63	0.01	66	0.01	3	4.8
Calender Operator Helpers	7	0.00	7	0.00	0	0
Cheesemaker Helpers	2	0.00	2	0.00	0	0
Chicken Cutters	24	0.00	25	0.00	1	4.2
Decorators, Bakery Products	7	0.00	7	0.00	0	0
Die Mounters	9	0.00	9	0.00	0	0
Drapers	1	0.00	1	0.00	0	0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Filter Operators, Petroleum	62	0.01	79	0.01	17	27.4
Fireworks Makers	1	0.00	1	0.00	0	0
Floor Workers, Footwear	49	0.01	53	0.01	4	8.2
Ingredient Scalers	8	0.00	8	0.00	0	0
Pickers	1	0.00	1	0.00	0	0
Poultry Dressers, Eviscerators	145	0.02	151	0.02	6	4.1
Printer-Slotter Feeders	5	0.00	5	0.00	0	0
Seasoners, Machine	3	0.00	3	0.00	0	0
Shuttlers, Embroidery	4	0.00	4	0.00	0	0
Skinners, Animal	4	0.00	4	0.00	0	0
Smokers	2	0.00	2	0.00	0	0
Stickers	2	0.00	2	0.00	0	0
Refinery Operator Helpers, Petroleum	8	0.00	10	0.00	2	25.0
Stock Preparers	1	0.00	1	0.00	0	0
Stunners	4	0.00	4	0.00	0	0
Thread Trimmers	90	0.02	93	0.01	3	3.3
Leaf Conditioners, Casers	2	0.00	2	0.00	0	0
Finishers, Pottery & Porcelain	71	0.01	66	0.01	- 5	- 7.0
Cigar Makers, Hand	2	0.00	2	0.00	0	0
Flamers	8	0.00	9	0.00	1	12.5
Lasters, Hand	12	0.00	13	0.00	1	8.3
Side Lasters	22	0.00	24	0.00	2	9.1
Toe Lasters	12	0.00	13	0.00	1	8.3
Purification Operators, etc.	21	0.00	21	0.00	0	0
Bed Setters	1	0.00	1	0.00	0	0
Press Assistants & Feeders	125	0.02	134	0.02	9	7.2
Copy Markers	19	0.00	20	0.00	1	5.3
Mailers	136	0.02	148	0.02	12	8.8
Operatives, NEC, Nonmanufacturing	191	0.03	299	0.04	108	56.5
Billposters	15	0.00	25	0.00	10	66.7
Exterminators	26	0.00	43	0.01	17	65.4
Natural Gas Treating Unit Operators	68	0.01	94	0.01	26	38.2

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Termite Treaters	70	0.01	117	0.02	47	67.1
Termite Treater Helpers	12	0.00	20	0.00	8	66.7
TRANSPORT EQUIPMENT OPERATIVES						
Bus Drivers	25,753	4.30	29,391	4.27	3,638	14.1
Delivery & Route Workers	1,619	0.27	1,780	0.26	161	9.9
Fork Lift, Tow Motor Operators	5,144	0.86	5,886	0.86	742	14.4
Industrial Truck Operators	2,505	0.42	2,679	0.39	174	6.9
Carrier Drivers	2,337	0.39	2,510	0.36	173	7.4
Log Handling Equipment Operators	24	0.00	24	0.00	0	0
Parking Attendants	144	0.02	145	0.02	1	0.7
Tower Operators	207	0.03	279	0.04	72	34.8
Taxicab Drivers, Chauffeurs	66	0.01	66	0.01	0	0
Ambulance Driver	771	0.13	736	0.11	- 35	- 4.5
Taxi Drivers	114	0.02	130	0.02	16	14.0
Chauffeurs	570	0.10	523	0.08	- 47	- 8.2
Truck Drivers	87	0.01	83	0.01	- 4	- 4.6
ALL OTHER SEMISKILLED WORKERS	15,441	2.58	17,965	2.61	2,524	16.3
SERVICE WORKERS	18,584	3.10	20,284	2.95	1,700	9.1
CLEANING SERVICE WORKERS	73,263	12.22	90,180	13.11	16,917	23.1
Janitors & Sextons	18,176	3.03	21,482	3.12	3,306	18.2
	18,176	3.03	21,482	3.12	3,306	18.2
FOOD SERVICE WORKERS						
Bakers, Bread &/Or Pastry	28,810	4.81	39,223	5.70	10,413	36.1
Bartenders	243	0.04	294	0.04	51	21.0
Waiters Assistants	857	0.14	1,053	0.15	196	22.9
Cooks, exc. Private	772	0.13	1,067	0.16	295	38.2
Cooks, Short Order/Specialty Fast Food	7,722	1.29	9,905	1.44	2,183	28.3
Cooks, Restaurant	2,451	0.41	3,544	0.52	1,093	44.6
Cooks, Institutional	1,542	0.26	2,099	0.31	557	36.1
	3,729	0.62	4,262	0.62	533	14.3

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Butchers &/Or Meat Cutters	1,133	0.19	1,462	0.21	329	29.0
Waiters	6,804	1.13	9,622	1.40	2,818	41.4
Hosts/Hostesses, Restaurant, Lounge, Coffee Shop	144	0.02	208	0.03	64	44.4
Waiters or Waitresses	6,660	1.11	9,414	1.37	2,754	41.4
Food Workers, NEC, exc. Private	11,279	1.88	15,820	2.30	4,541	40.3
Food Preparation & Service Workers, Fast Food Restaurant	5,310	0.89	8,159	1.19	2,849	53.7
Pantry, Sandwich &/Or Coffee Makers	66	0.01	98	0.01	32	48.5
All Other Food Service Workers	5,903	0.98	7,563	1.10	1,660	28.1
HEALTH SERVICE WORKERS	10,020	1.67	11,561	1.68	1,541	15.4
Nurses Aides, Orderlies	10,020	1.67	11,561	1.68	1,541	15.4
Nurses Aide/Orderly	10,013	1.67	11,553	1.68	1,540	15.4
Orthopedic Cast Specialists	7	0.00	8	0.00	1	14.3
PERSONAL SERVICE WORKERS	4,479	0.75	4,549	0.66	70	1.6
Attendants, Recreation, Amusement	481	0.08	494	0.07	13	2.7
Recreation Facility Attendants	327	0.05	337	0.05	10	3.1
Game Operators, Ride Operators, Concession Workers	107	0.02	108	0.02	1	0.9
Pin Chasers	44	0.01	45	0.01	1	2.3
Lifeguards	3	0.00	4	0.00	1	33.3
Attendants, Personal Service, NEC	633	0.11	666	0.10	33	5.2
Funeral Attendants	168	0.03	160	0.02	- 8	- 4.8
Masseurs or Masseuses	22	0.00	21	0.00	- 1	- 4.5
Instructors, Reducing	98	0.02	93	0.01	- 5	- 5.1
Housekeepers, Hotel & Motel	173	0.03	207	0.03	34	19.7
Checkroom & Locker Room Attendants	20	0.00	21	0.00	1	5.0
Guides, Sightseeing or Establishment	11	0.00	11	0.00	0	0
Other Personal Service Attendants	141	0.02	153	0.02	12	8.5
Baggage Porters & Bellhops	150	0.03	188	0.03	38	25.3

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Bellhops, Bag Porters, Doorkeepers, etc.	147	0.02	185	0.03	38	25.9
Baggage Porters	3	0.00	3	0.00	0	0
Barbers	187	0.03	181	0.03	- 6	- 3.2
Bootblacks	3	0.00	3	0.00	0	0
Child Care Workers, exc. Private	370	0.06	370	0.05	0	0
Child Care Attendants	167	0.03	166	0.02	- 1	- 0.6
Child Care Workers	203	0.03	204	0.03	1	0.5
Elevator Operators	211	0.04	257	0.04	46	21.8
Hairdressers, Cosmetologists	1,760	0.29	1,673	0.24	- 87	- 4.9
Cosmetologists/Women's Hairstylists	1,732	0.29	1,645	0.24	- 87	- 5.0
Manicurists	16	0.00	16	0.00	0	0
Scalp Treatment Operators	2	0.00	2	0.00	0	0
Shampooers	10	0.00	10	0.00	0	0
School Monitors	116	0.02	133	0.02	17	14.7
Ushers, Lobby Attendants, Ticket Takers	101	0.02	97	0.01	- 4	- 4.0
Welfare Service Aides	467	0.08	487	0.07	20	4.3
PROTECTIVE SERVICE WORKERS	7,781	1.30	8,788	1.28	1,007	12.9
Crossing Guards, Bridgetenders	266	0.04	274	0.04	8	3.0
Crossing or Bridgetenders	88	0.01	91	0.01	3	3.4
School Crossing Guards	178	0.03	183	0.03	5	2.8
Firefighters	1,358	0.23	1,399	0.20	41	3.0
Firefighters	1,155	0.19	1,190	0.17	35	3.0
Fire Inspectors	13	0.00	13	0.00	0	0
Fire Officers	190	0.03	196	0.03	6	3.2
Guards	3,474	0.58	4,343	0.63	869	25.0
Guards & Doorkeepers	2,789	0.47	3,635	0.53	846	30.3
Checkers, Fitting Room	32	0.01	35	0.01	3	9.4
Fish & Game Wardens	93	0.02	97	0.01	4	4.3
Correction Officers &/Or Jailers	560	0.09	576	0.08	16	2.9
U. S. Marshalls	18	0.00	18	0.00	0	0
Police & Detectives	2,425	0.40	2,507	0.36	82	3.4

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Detectives	108	0.02	116	0.02	8	7.4
Store Detectives	20	0.00	22	0.00	2	10.0
Railroad Police	38	0.01	38	0.01	0	0
Police Officers	253	0.04	261	0.04	8	3.2
Police Detectives	114	0.02	116	0.02	2	1.8
Police Patrolmen/Women	1,826	0.30	1,886	0.27	60	3.3
Parking Enforcement Officers	66	0.01	68	0.01	2	3.0
Sheriffs & Bailiffs	240	0.04	247	0.04	7	2.9
Sheriffs	235	0.04	242	0.04	7	3.0
Bailiffs	5	0.00	5	0.00	0	0
OTHER SERVICE WORKERS	3,997	0.67	4,577	0.67	580	14.5
Supervisors, Nonworking, Service	970	0.16	1,145	0.17	175	18.0
All Other Service Workers	3,027	0.50	3,432	0.50	405	13.4
LABORERS, EXCEPT FARM	46,944	7.83	53,138	7.72	6,194	13.2
ANIMAL CARETAKERS	52	0.01	54	0.01	2	3.8
CONSTRUCTION LABORERS, EXC. CARPENTERS HELPERS	2,419	0.40	2,723	0.40	304	12.6
Air Hammer Operators	119	0.02	145	0.02	26	21.8
Form Setters, Metal Road Form	17	0.00	20	0.00	3	17.6
Fence Erectors	29	0.00	34	0.00	5	17.2
Pipelayers	271	0.05	307	0.04	36	13.3
Reinforcing-Iron Workers	581	0.10	756	0.11	175	30.1
Trench Sewer Shapers	3	0.00	4	0.00	1	33.3
Sewer Tappers	4	0.00	5	0.00	1	25.0
Highway Maintenance Workers	1,369	0.23	1,421	0.21	52	3.8
Asphalt Rakers	26	0.00	31	0.00	5	19.2
FREIGHT, MATERIAL HANDLERS	1,073	0.18	1,157	0.17	84	7.8
Platform Workers, Glass	45	0.01	46	0.01	1	2.2

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
Chain Offbearers, Lumber	147	0.02	149	0.02	2	1.4
Kiln Transfer Operators	2	0.00	2	0.00	0	0
Loaders, Car & Truck	45	0.01	45	0.01	0	0
Lumber Straighteners	32	0.01	32	0.00	0	0
Off-Bearers	91	0.02	92	0.01	1	1.1
Ordering Machine Operators	1	0.00	1	0.00	0	0
Kiln Stacker Operators	4	0.00	4	0.00	0	0
Tire Layers & Extractors	1	0.00	1	0.00	0	0
Feeders/Catchers, Tobacco	5	0.00	4	0.00	- 1	- 20.0
Veneer Drier Feeders	19	0.00	19	0.00	0	0
Conveyor Operators or Tenders	544	0.09	623	0.09	79	14.5
Cullet Crusher/Washer Operators	26	0.00	26	0.00	0	0
Work Distributors	111	0.02	113	0.02	2	1.8
GARBAGE COLLECTORS	783	0.13	821	0.12	38	4.9
GARDENERS, GROUNDSKEEPERS, EXC. FARM	1,414	0.24	1,596	0.23	182	12.9
TIMBERCUTTING, LOGGING WORKERS	559	0.09	562	0.08	3	0.5
Chasers	46	0.01	46	0.01	0	0
Choker Setters, Lumber	134	0.02	135	0.02	1	0.7
Bull Chain Operators	15	0.00	15	0.00	0	0
Fallers &/Or Buckers	265	0.04	267	0.04	2	0.8
Head Loaders	58	0.01	58	0.01	0	0
High Climbers	4	0.00	4	0.00	0	0
Pond Workers, Lumber	14	0.00	14	0.00	0	0
Rigging Slingers	5	0.00	5	0.00	0	0
Second Loaders	18	0.00	18	0.00	0	0
STOCK HANDLERS	4,158	0.69	5,046	0.73	888	21.4
Order Fillers	1,559	0.26	1,824	0.27	265	17.0
Stock Clerks, Sales Floor	2,599	0.43	3,222	0.47	623	24.0

TABLE 5
CONTINUED

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
VEHICLE WASHERS, EQUIPMENT CLEANERS	48	0.01	49	0.01	1	2.1
Polishers, Mold	47	0.01	48	0.01	1	2.1
Mold Cleaners, Tire	1	0.00	1	0.00	0	0
OTHER LABORERS	36,438	6.08	41,130	5.98	4,692	12.9
Hose Loaders	4	0.00	4	0.00	0	0
Setters &/Or Drawers	253	0.04	243	0.04	- 10	- 4.0
Shakers	3	0.00	3	0.00	0	0
Strippers	5	0.00	5	0.00	0	0
Furnace Operator Helpers/Heater Helpers	183	0.03	189	0.03	6	3.3
Riggers	542	0.09	570	0.08	28	5.2
Helper, Trades	7,606	1.27	8,950	1.30	1,344	17.7
Cannery Workers	264	0.04	276	0.04	12	4.5
Shank Piece Tackers	10	0.00	11	0.00	1	10.0
Treers	37	0.01	40	0.01	3	8.1
Line Service Attendants	31	0.01	40	0.01	9	29.0
Forest Conservation Workers	77	0.01	80	0.01	3	3.9
Septic Tank Servicers, etc.	8	0.00	10	0.00	2	25.0
All Other Unskilled Workers	27,415	4.57	30,709	4.46	3,294	12.0

TABLE 6
AVERAGE ANNUAL JOB OPENINGS BY OCCUPATION, 1976-1982

OCCUPATION	Total Openings	% of 1982 Employment*	Openings Due To Growth	Openings Due To Separation
TOTAL, ALL OCCUPATIONS	35,325	5.13	14,845	20,480
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	5,019	5.12	1,871	3,148
ENGINEERS	250	3.53	108	142
Chemical Engineers	29	1.99	9	20
Civil Engineers	57	5.14	26	31
Electrical Engineers	42	3.79	19	23
Industrial Engineers	37	3.27	17	20
Mechanical Engineers	23	2.65	11	12
Metallurgical Engineers	5	2.01	2	3
Mining Engineers	26	5.50	12	14
Petroleum Engineers	4	4.94	3	1
Other Engineers	27	4.65	9	18
All Other Engineers	27	4.75	9	18
LIFE & PHYSICAL SCIENTISTS	40	2.52	13	27
Agricultural Scientists	1	2.44	0	1
Atmospheric Scientists	1	5.88	0	1
Life Scientists	7	5.69	2	5
Biological Scientists	5	4.81	1	4
Medical Scientists	2	10.53	1	1
Chemists	24	2.21	8	16
Geologists	3	2.68	2	1
Life, Physical Scientists, NEC	4	2.47	1	3
MATHEMATICAL SPECIALISTS	3	1.71	1	2
Statisticians	3	2.68	1	2
ENGINEERING, SCIENCE TECHNICIANS	256	3.34	145	111
Drafters	76	4.09	51	25
Electrical, Electronic Technicians	47	3.27	30	17

* Percent of the projected 1982 employment for the occupation in question.

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Electrical & Electronic Technicians	45	3.38	29	16
Broadcast Technicians	2	2.15	1	1
Mechanical Engineering Technicians	13	2.68	3	10
Surveyors	54	5.82	35	19
Engineering, Science Technicians, NEC	66	2.26	26	40
Traffic Technicians	2	3.70	0	2
All Other Engineering Technicians	34	2.34	14	20
All Other Science Technicians	30	2.15	12	18
MEDICAL WORKERS, EXC. TECHNICIANS	591	5.48	246	345
Chiropractors	1	7.69	0	1
Dentists	13	4.56	7	6
Dietitians	15	5.93	5	10
Nurses & Physicians Assistants	415	5.82	160	255
Nurses, Professional	407	5.84	157	250
Physicians Assistants	8	4.88	3	5
Pharmacists	57	7.02	25	32
Physicians, Medical & Osteopathic	73	3.84	41	32
Therapists	17	4.66	8	9
Occupational Therapists	2	5.41	1	1
Speech & Hearing Clinicians, etc.	5	4.39	2	3
Physical Therapists	7	4.93	3	4
Inhalation Therapists	3	5.08	2	1
HEALTH TECHNOLOGISTS & TECHNICIANS	545	5.76	232	313
Clinical Lab Technologists & Technicians	76	5.40	34	42
Medical Lab Technologists	37	5.23	16	21
Cytotechnologists	2	6.06	1	1
Medical Lab Assistants	37	5.55	17	20
Dental Hygienists & Assistants	68	4.99	35	33
Dental Assistants	45	4.71	24	21
Dental Hygienists	23	5.67	11	12

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Health Record Technologists & Technicians	16	5.06	8	8
Radiologic Technologists & Technicians	52	5.42	23	29
X-Ray Technicians	48	5.53	22	26
Nuclear Medicine Technologists	3	5.45	1	2
Radiation Therapy Technologists	1	2.70	0	1
Other Health Technologists & Technicians	333	6.16	132	201
Surgical Technicians	15	4.78	8	7
EKG Technicians	9	4.57	5	4
Pharmacy Helpers	14	6.01	6	8
Licensed Practical Nurses	256	6.82	94	162
All Other Medical & Dental Technicians	39	4.3?	19	20
TECHNICIANS, EXC. HEALTH OR S&E	75	3.66	25	50
Airplane Pilots	3	2.48	2	1
Air Traffic Controllers	3	1.90	0	3
Embalmers	23	13.14	0	23
Embalmers	21	14.09	0	21
Ladies' Attendants	2	7.69	0	2
Radio Operators	4	10.26	1	3
Other Technicians, exc. Health or S&E	42	2.77	22	20
All Other Technicians	42	2.82	22	20
COMPUTER SPECIALISTS	30	2.87	19	11
Computer Programmers	20	3.12	13	7
Computer Systems Analysts	10	2.48	6	4
SOCIAL SCIENTISTS	17	3.89	5	12
Economists	4	4.30	1	3
Psychologists	7	4.37	3	4
Other Social Scientists	6	4.84	1	5
TEACHERS	1,766	6.08	597	1,169

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Adult Education Teachers	27	4.10	12	15
College & University Teachers	167	4.97	71	96
Teachers, College	128	4.96	54	74
Graduate Assistants	37	4.96	16	21
Extension Service Specialists	2	5.88	1	1
Elementary School Teachers	921	7.05	273	648
Preschool, Kindergarten Teachers	47	4.96	14	33
Secondary School Teachers	541	5.36	210	331
Teachers, NEC	63	6.80	17	46
Dance Instructors	1	7.69	0	1
All Other Teachers	62	6.78	17	45
WRITERS, ARTISTS, & ENTERTAINERS	134	4.10	57	77
Athletes & Kindred Workers	3	2.54	1	2
Sports Instructors	3	2.94	1	2
Designers	49	4.85	32	17
Designers	49	4.85	32	17
Editors & Reporters	43	7.01	9	34
Writers &/Or Editors	19	7.09	4	15
Film Editors	1	6.67	0	1
Reporters & Correspondents	23	6.97	5	18
Musicians	9	1.95	0	9
Photographers	10	3.46	7	3
Photographers	10	3.97	7	3
Public Relations Specialists	14	3.83	4	10
Radio, TV Announcers	6	1.48	4	2
Announcers	5	1.42	3	2
Broadcast News Analysts	1	1.82	1	0
OTHER PROFESSIONAL & TECHNICAL WORKERS	1,312	5.18	423	889
Accountants	253	6.50	109	144

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Accountants & Auditors	222	6.68	100	122
Tax Examiners, Collectors, Revenue Agents	20	4.36	2	18
Tax Preparers	11	9.91	7	4
Architects	10	9.17	5	5
Archivists & Curators	2	5.56	0	2
Museum Curators	2	5.71	0	2
Buyers & Purchasing Agents	169	5.57	80	89
Purchasing Agents &/Or Buyers	33	3.83	12	21
Lease Buyers	3	9.09	2	1
Buyers, Retail &/Or Wholesale Trade	133	6.23	66	67
Clergy	210	4.16	0	210
Directors, Religious Activities &/Or Religious Education	1	12.50	0	1
Foresters	5	2.66	0	5
Judges	37	9.74	2	35
Judges	13	10.24	1	12
Magistrates	24	9.49	1	23
Lawyers & Kindred Workers	97	8.00	38	59
Law Clerks	11	8.94	5	6
Lawyers	82	7.86	31	51
Paralegal Personnel	4	8.70	2	2
Librarians	60	5.51	21	39
Librarians	55	5.53	19	36
Audio Visual Specialists	5	5.26	2	3
Personnel, Labor Relations Specialists	48	4.02	17	31
Personnel, Labor Relations Specialists	31	3.77	10	21
Employment Interviewers	17	4.59	7	10
Recreation Workers	7	3.40	2	5
Social Workers	80	4.74	15	65
Caseworkers	69	4.80	14	55
Community Organization Workers	11	4.45	1	10
Vocational & Educational Counselors	52	4.54	21	31
All Other Professional Workers	281	4.60	113	168

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Safety Inspectors	8	4.49	2	6
Underwriters	7	4.79	1	6
Cost Estimators	29	7.02	16	13
Credit Analysts, Chief	4	6.67	2	2
Credit Analysts	9	6.29	4	5
Investigators, Insurance	2	4.35	1	1
Appraisers, Real Estate	10	6.94	2	8
Assessors	39	9.03	2	37
Claims Takers, Unemployment Benefits	4	4.71	1	3
Special Agents, Insurance	2	4.88	0	2
Travel Agents, Travel Accommodations Appraisers	4	5.33	1	3
Claim Examiners, Property/Casualty Insurance	1	1.75	0	1
All Other Professional	162	3.82	81	81
MANAGERS & OFFICIALS	3,382	6.37	1,147	2,235
SALES MANAGERS	132	5.25	73	59
Sales Managers, Retail Trade	132	5.25	73	59
ADMINISTRATORS, PUBLIC INSPECTORS	173	6.10	11	162
Construction Inspectors, Public Administration	83	8.19	7	76
Inspectors, exc. Construction, Public Administration	27	3.21	3	24
Postmasters & Mail Superintendents	63	6.42	1	62
OTHER MANAGERS & OFFICIALS	3,077	6.44	1,063	2,014
Railroad Conductors	27	4.42	0	27
Other Managers & Administrators	3,050	6.47	1,063	1,987
Managers, Store	479	7.08	199	280
Managers, Auto Service Department	27	5.99	8	19
Managers, Auto Parts Department	22	6.21	7	15
Wholesalers	148	7.42	67	81
All Other Managers	2,374	6.32	782	1,592

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
SALES WORKERS	2,317	6.06	977	1,340
DEMONSTRATORS	50	4.91	27	23
INSURANCE AGENTS, BROKERS, ETC.	66	4.49	6	60
Sales Agents, Sales Representatives, Insurance	66	4.51	6	60
REAL ESTATE AGENTS, BROKERS	59	10.30	20	39
Real Estate Brokers	3	9.68	1	2
Sales Agents, Sales Representatives, Real Estate	56	10.39	19	37
STOCK & BOND SALES AGENTS	3	5.45	0	3
Sales Agents, Sales Representatives, Security	3	5.45	0	3
OTHER SALES WORKERS	2,139	6.09	924	1,215
Sales Clerks	1,392	6.02	591	801
Vendors	2	4.35	0	2
Crating & Moving Estimators	1	6.25	0	1
All Other Sales Workers	744	6.23	333	411
CLERICAL WORKERS	6,140	5.31	2,549	3,591
STENOGRAPHERS, TYPISTS & SECRETARIES	1,153	5.21	471	682
Secretaries	786	5.26	342	444
Stenographers	115	5.61	34	81
Typists	252	4.92	95	157
OFFICE MACHINE OPERATORS	261	5.00	131	130
Bookkeeping, Billing Operators	145	6.20	76	69
Bookkeeping/Billing Machine Operators	102	5.80	50	52
Proof Machine Operators	39	7.44	24	15
Transit Clerks	4	7.27	2	2

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Computer, Peripheral Equipment Operators	29	2.58	15	14
Computer Operators	25	2.48	12	13
Peripheral EDP Equipment Operators	4	3.45	3	1
Duplicating Machine Operators	3	2.42	1	2
Keypunch Operators	66	5.37	33	33
Tabulating Machine Operators	2	2.38	1	1
All Other Office Machine Operators	16	5.02	5	11
OTHER CLERICAL WORKERS	4,726	5.36	1,947	2,779
Bank Tellers	245	7.39	140	105
New Accounts Tellers	19	7.48	11	8
Tellers	226	7.38	129	97
Bookkeepers	526	6.27	211	315
Accounting Clerks	153	5.53	46	107
Bookkeepers, Hand	373	6.63	165	208
Cashiers	727	6.08	377	350
Eligibility Workers, Welfare	28	3.62	5	23
Clerical Supervisors	123	4.88	46	77
Collectors, Bill & Account	36	6.61	21	15
Counter Clerks, exc. Food	98	5.96	44	54
Car Rental Clerks	8	7.84	5	3
Desk Clerks	35	6.60	18	17
Order Clerks	49	5.70	20	29
Circulation Clerks	2	5.00	1	1
Classified Ad Clerks, Newspaper	1	3.85	0	1
Telephone Ad Takers, Newspaper	1	3.85	0	1
Desk Clerks, Bowling Floor	2	3.28	0	2
Dispatchers, Starters, Vehicle	18	4.30	2	16
Dispatchers, Police, Fire, Ambulance	18	4.30	2	16
Estimators, Investigators, NEC	38	5.83	15	23
Adjustment Clerks	7	5.51	2	5
Checking Clerks	4	6.56	2	2

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Claims Clerks	10	3.95	1	9
Credit Reporters	9	9.47	6	3
Loan Closers, New Construction	8	7.34	4	4
Production Clerks	24	2.23	7	17
File Clerks	82	5.13	31	51
File Clerks	61	5.41	26	35
Personnel Clerks	20	4.42	5	15
Admissions Evaluators	1	5.88	0	1
Claim Adjusters	11	2.22	1	10
Claim Examiners, Insurance	11	3.72	1	10
Library Assistants	31	5.90	11	20
Mail Carriers, Postal Service	97	3.57	1	96
Mail Handlers, exc. Postal Service	1	5.26	0	1
Messengers & Office Helpers	4	3.70	2	2
Messengers	4	4.00	2	2
Meter Readers, Utilities	7	1.61	1	6
Payroll, Time Keeping Clerks	64	4.26	21	43
Postal Clerks	30	2.95	1	29
Proofreaders	3	4.69	1	2
Receptionists	212	5.62	98	114
Receptionists	128	5.46	57	71
Switchboard Operators/Receptionists	83	5.95	41	42
Travel Counselors, Auto Club	1	2.63	0	1
Shipping, Receiving Clerks	195	4.23	100	95
Shipping & Receiving Clerks	123	4.39	66	57
Shipping Packers	72	3.99	34	38
Statistical Clerks	11	3.67	2	9
Raters	5	4.13	1	4
Tally Clerks, Saw Mill	1	3.33	0	1
Court Clerks	4	4.21	1	3
Insurance Checkers	1	3.33	0	1
Stock Clerks, Store Keepers	423	5.10	220	203

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Procurement Clerks	3	2.73	0	3
Stock Clerks, Stockroom, Warehouse, etc.	417	5.15	220	197
Yard Clerks	3	3.19	0	3
Telegraph Operators	6	4.03	0	6
Telephone Operators	129	5.05	45	84
Switchboard Operators	72	6.08	34	38
Central Office Operators	56	4.19	11	45
Service Observers	1	4.35	0	1
Ticket, Station, Express Agents	7	5.11	2	5
Station Agents	3	3.85	0	3
Transportation Agents	4	7.02	2	2
Weighers	20	2.84	8	12
All Other Clerical Workers	1,530	5.48	534	996
Call-Out Operators	6	9.09	4	2
Foreign Reporters	1	8.33	1	0
General Clerks, Office	906	5.54	328	578
In-File Operators	10	9.90	7	3
Policy Change Clerks	3	4.05	0	3
Real Estate Clerks	3	5.66	1	2
Safe Deposit Clerks	5	7.69	3	2
Statement Clerks	29	7.69	17	12
Traffic Clerks	2	4.55	0	2
Shade Ticket Markers	1	7.14	0	1
Service Representatives	13	4.48	2	11
Rate Clerks, Freight	5	5.15	1	4
Town Clerks	13	5.78	1	12
Mortgage Closing Clerks	7	7.45	4	3
Sorting Clerks, Bank	2	11.11	1	1
Insurance Clerks	1	9.09	1	0
Insurance Clerks, Medical	41	6.00	17	24
All Other Office Clerical	318	5.09	96	222
All Other Plant Clerical	164	5.33	50	114

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
CRAFTS & KINDRED WORKERS	5,196	4.36	2,400	2,796
CONSTRUCTION CRAFTS WORKERS	1,974	5.02	1,038	936
Carpenters	456	6.52	234	222
Roof Bolters	304	5.68	128	176
Brickmasons & Stonemasons	66	5.43	41	25
Bricklayers	59	6.00	39	20
Stonemasons	1	5.00	1	0
Refractory Materials Repairers	6	2.82	1	5
Bulldozer Operators	4	1.83	0	4
Cement & Concrete Finishers	48	5.02	32	16
Cement Masons	48	5.14	32	16
Electricians	324	4.26	176	148
Excavating, Grading Machine Operators	404	4.00	251	153
Concrete Mixer Operators	1	3.03	1	0
Fine-Graders	1	3.45	1	0
Form Tamper Operators, etc.	1	3.70	1	0
Heavy Equipment Operators	396	4.09	248	148
Batch Plant Operators	1	1.23	0	1
Ballast Cleaning Machine Operators, etc.	4	1.69	0	4
Painters, Construction, Maintenance	93	6.29	41	52
Paperhangers	3	16.67	1	2
Plasterers	4	10.00	2	2
Plumbers & Pipefitters	182	4.98	75	107
Plumbers &/Or Pipefitters	182	4.99	75	107
Roofers	23	5.09	17	6
Structural Steel Workers	50	4.92	32	18
Tile Setters	13	6.19	8	5
Tile Setters	5	6.85	3	2
Ceiling Tile Installers, Floor Layers	8	5.84	5	3

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
BLUE COLLAR WORKER SUPERVISORS	748	4.33	294	454
Dispatchers, Mine Car	16	5.14	8	8
Supervisors, Nonworking	732	4.31	286	446
METALWORKING CRAFTS WORKERS, EXC. MECHANICS	262	3.57	97	165
Blacksmiths	3	5.66	0	3
Boilermakers	18	3.96	9	9
Heat Treaters, Annealers, etc.	5	3.40	2	3
Forge & Hammer Operators	1	3.13	0	1
Forging Press Operators	1	5.00	0	1
Job & Die Setters, Metal	7	2.06	2	5
Machine Tool Setters, Metalworking	6	2.55	2	4
Punch Press Setters, Metal	1	1.32	0	1
Machinists	102	3.73	39	63
Layout Markers, Metal	4	3.67	1	3
Machinists	98	3.73	38	60
Millwrights	45	3.36	11	34
Molders, Metal	5	2.11	2	3
Molders, Bench &/Or Floor	2	3.03	1	1
Molders, Machine (Metal)	3	1.87	1	2
Rollers & Finishers, Metal	15	3.47	2	13
Cold Mill Operators	1	3.23	0	1
Forging/Straightening Roll Operators	1	2.70	0	1
Guide Setters	3	4.29	1	2
Rollers, Primary Mill	4	3.88	1	3
Rolling Attendants	1	4.76	0	1
Rolling Mill Operators, Rough or Finish	1	2.86	0	1
Roughers	2	3.33	0	2
Screwdown Operators	1	4.00	0	1
Speed Operators	1	3.45	0	1
Sheet Metal Workers, Tinsmiths	50	4.01	27	23
Toolmakers & Diemakers	11	3.05	3	8

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
MECHANICS, REPAIRERS, INSTALLERS	1,077	4.18	574	503
Air Conditioning, Heating, Refrigeration Mechanics	45	4.78	22	23
Refrigeration Mechanics, A/C Mechanics	33	4.41	15	18
Furnace Installers & Repairers	10	6.10	6	4
Oil Burner Installers, Servicers	2	6.90	1	1
Aircraft Mechanics	3	1.83	2	1
Auto Seat Cover, Top Installers	1	5.26	1	0
Auto Body Repairers	42	4.02	25	17
Auto Mechanics	345	4.52	187	158
Automotive Mechanics	343	4.52	186	157
Auto Repair Service Estimators	2	5.88	1	1
Data Processing Machine Mechanics	5	5.43	5	0
Heavy Equipment Mechanics, Including Diesel	353	4.08	188	165
Engineering Equipment Mechanics	81	5.45	54	27
Hydroelectric Machine Mechanics, etc.	7	2.33	1	6
Mine Machinery Mechanics	144	4.28	80	64
Maintenance Mechanics	119	3.47	52	67
Knitting Machine Fixers	2	2.86	1	1
Household Appliance Mechanics	19	2.17	7	12
Electric Meter Installers, etc.	2	1.40	0	2
Household Appliance Installers	7	4.00	5	2
Water Meter Installers	1	1.96	0	1
Household Appliance Repairers	9	1.79	2	7
Office Machine Servicers/Cash Register Servicers	33	4.78	28	5
Radio, Television Repairers	26	5.57	15	11
TV Servicers & Repairers, etc.	26	5.66	15	11
Railroad Car Shop Repairers	24	3.88	0	24
Electric Track Switch Maintainers	1	7.14	0	1
Signal Maintainers	4	3.54	0	4
Car Repairers	19	3.87	0	19
Other Mechanics & Repairers	181	3.96	94	87
Bicycle Repairers	2	7.14	1	1

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Electric Motor Repairers	24	5.07	15	9
Coin Machine Servicers, Repairers	5	3.45	2	3
Sewing Machine Mechanics	1	1.72	0	1
Protective Signal Installers/Repairers	3	7.89	3	0
Instrument Repairers	17	2.45	4	13
Diesel Mechanics	39	4.46	22	17
Pinsetter Mechanics, Automatic	1	2.17	0	1
Sign Erectors	8	7.92	7	1
All Other Mechanics & Repairers	81	3.91	40	41
PRINTING TRADE CRAFTS WORKERS	41	2.44	12	29
Bookbinders	7	2.99	1	6
Bookbinders	1	2.56	0	1
Setters, Bindery Machines	1	4.55	0	1
Bindery Workers	5	2.89	1	4
Compositors & Typesetters	20	3.38	6	14
Hand Compositors	1	4.35	0	1
Imposers & Makeup Arrangers	3	3.61	1	2
Linecasting Machine Operators	3	3.03	1	2
Phototypesetting Machine Monitors	1	4.00	0	1
Strike-On Machine Operators	2	5.26	1	1
Linecasting Machine Keyboard Operators	3	4.48	1	2
Pasteup Men/Women	5	3.38	2	3
Phototypesetting Machine Keyboard Operators	1	2.78	0	1
Copy Cutters	1	6.25	0	1
Engravers, exc. Photoengravers	2	1.77	0	2
Engravers, Glassware	2	1.94	0	2
Photoengravers, Lithographers	3	2.01	1	2
Camera Operators, Printing	2	2.56	1	1
Photoengravers	1	2.63	0	1
Press & Plate Printers	9	1.53	4	5
Press Operators, Plate Printers	2	1.60	1	1

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Offset Lithographic Press Operators	5	1.76	2	3
Letter Press Operators	2	1.55	1	1
TRANSPORTATION, PUBLIC UTILITIES CRAFT WORKERS	70	2.25	17	53
Electric Power Line Installers, Repairers	22	1.74	8	14
Line Installers, Repairers	21	1.80	8	13
Trouble Shooters, Power Line	1	1.05	0	1
Locomotive Engineers	21	4.46	0	21
Hostlers	8	4.28	0	8
Locomotive Engineers	13	4.58	0	13
Power Station Operators	1	1.59	0	1
Dispatchers, Load	1	1.59	0	1
Telephone Installers, Repairers	26	1.98	9	17
Installers, Repairers, Section Maintainers	14	2.07	5	9
Frame Wirers	1	2.00	0	1
Central Office Repairers	11	2.01	4	7
OTHER CRAFTS, KINDRED WORKERS	1,024	4.16	368	656
Bakers	15	6.98	8	7
Bakers	15	7.18	8	7
Cabinetmakers	14	5.98	6	8
Carpet Cutters, Carpet Layers	14	5.81	8	6
Crane, Derrick, Hoist Occupations	97	3.94	31	66
Crane, Derrick, & Hoist Operators	94	3.98	31	63
Loader Engineers	2	3.45	0	2
Yarder Engineers	1	2.17	0	1
Merchandise Displayers & Window Trimmers	4	5.56	1	3
Dental Lab Technicians	17	4.20	10	7
Furniture Finishers	11	8.73	4	7
Glaziers	8	4.26	5	3
Inspectors, Log & Lumber	4	5.06	0	4
Log Inspectors, Graders, Scalers	2	4.55	0	2

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Lumber Graders	2	5.88	0	2
Other Inspection Occupations	135	3.82	25	110
Fire Bosses	27	5.24	12	15
Inspectors	72	3.56	7	65
Testers	36	3.62	6	30
Jewelers & Watchmakers	8	7.55	3	5
Jewelers &/Or Silversmiths	3	6.52	1	2
Watchmakers	5	8.33	2	3
Motion Picture Projectionists	6	6.25	0	6
Opticians, Lens Grinders, Polishers	12	4.38	8	4
Lens Grinders	2	4.35	1	1
Opticians, Dispensing &/Or Optical Mechanics	10	4.39	7	3
Shoe Repairers	6	10.71	0	6
Shoe Repairers	4	10.26	0	4
Cobblers	2	11.76	0	2
Stationary Engineers	95	5.42	36	59
Control Room Operators, Steam	5	3.85	0	5
Auxiliary Equipment Operators	2	3.39	0	2
Oil Pumpers	28	7.82	17	11
Pumpers, Head	15	8.15	9	6
Stationary Engineers	18	4.35	4	14
Pumping Station Operators, Waterworks	1	4.55	0	1
Water Treatment Plant Operators	17	4.05	2	15
Ship Engineers	9	6.16	4	5
Stone Cutters, Stone Carvers	2	4.88	0	2
Contour Grinders	2	5.13	0	2
Tailors	31	7.35	6	25
Alteration Tailors	30	7.39	6	24
Sample Makers	1	6.67	0	1
Upholsterers	9	3.23	2	7
Furniture Upholsterers	4	6.25	2	2
Springers	1	1.79	0	1

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Upholsterers	2	2.67	0	2
Upholstery Cutters	1	4.55	0	1
Mattress Makers	1	2.33	0	1
Crafts & Kindred Workers, NEC	536	3.82	215	321
Pipeliners	1	2.13	0	1
Conduit Mechanics	2	5.88	1	1
Glass Blowers	7	2.63	1	6
Instructors, Apparel & Textile Machine	1	4.35	0	1
Decorators, Luster Appliers, etc.	12	3.39	1	11
Machine Setters, Paper Goods	2	3.70	1	1
Maintenance Repairers, General Utility	222	4.10	100	122
Forming Machine Maintainers, Glass	4	2.50	1	3
Field Mechanical Meter Testers	1	5.26	1	0
Mobile Home Repairers	2	4.17	1	1
Musical Instruments Repairers	3	5.00	2	1
All Other Skilled Crafts Workers	279	3.72	106	173
OPERATIVES	4,517	3.74	2,030	2,487
OPERATIVES, EXC. TRANSPORTATION	2,610	3.67	1,131	1,479
Semiskilled Metalworking Operatives	308	3.20	146	162
Drill Press Operatives	18	2.76	7	11
Drill Press/Boring Machine Operators	17	2.80	7	10
Drillers, Machine/Drillers, Multiple Spindle	1	2.50	0	1
Furnace Tenders, Smelters, Pourers	16	2.38	4	12
Blast Furnace Keepers	3	2.70	1	2
Steel Pourer Helpers	4	2.41	1	3
Stove Tenders	1	3.13	0	1
Pourers, Metal	3	2.50	1	2
Furnace Chargers	4	2.44	1	3
Heating Pit Chargers	1	2.33	0	1
Grinding/Abrading Machine Operators, Metal	13	3.26	4	9

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Heaters, Metal	1	1.18	0	1
Lathe, Milling Machine Operatives	29	2.81	12	17
Lathe/Turning Machine Operators, Metal	19	3.03	8	11
Milling/Planing Machine Operators	10	2.79	4	6
Metal Platers	7	1.92	3	4
Electroplaters	5	1.89	2	3
Dip Platers, Nonelectrolytic	2	1.98	1	1
Other Precision Machine Operatives	20	2.88	10	10
Machine Tool Operators, Combination	14	3.08	7	7
Machine Tool Operators, Numerical Control	2	3.33	1	1
Wood Machinists	2	2.15	1	1
Machine Tool Operators, Tool Room	2	2.74	1	1
Punch, Stamping Press Operatives	19	2.81	6	13
Punch Press Operators, Metal	16	2.89	5	11
Power Brake, Bending Machine Operators, Metal	3	3.03	1	2
Welders & Flame Cutters	185	3.67	100	85
Semiskilled Textile Operatives	12	4.14	3	9
Knitters, Loopers, & Toppers	8	6.02	2	6
Knitting Machine Operators	5	5.62	1	4
Loopers, Hosiery	3	6.82	1	2
Other Textile Operatives	4	3.48	1	3
Boarding Machine Operators, Hosiery	2	4.55	1	1
Folders, Hand	2	3.23	0	2
Semiskilled Packing, Inspecting Operatives	196	3.35	75	121
Checkers, Examiners, etc., Manufacturing	46	2.84	6	40
Selectors, Glassware	46	2.84	6	40
Packers, Wrappers, exc. Meat Products	150	3.57	69	81
Production Packagers	95	2.97	33	62
Bundlers	4	3.01	1	3
Baggers	51	5.85	35	16
Other Operatives, exc. Transport	2,094	3.79	907	1,187
Asbestos & Insulation Workers	21	3.79	13	8

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Assemblers	87	2.62	20	67
Assemblers, Hand	76	2.66	19	57
Spring Machine Operators	3	3.13	1	2
Wirers, Electronic	7	2.20	0	7
Coil Finishers	1	2.44	0	1
Blasters	55	6.44	21	34
Blasters, Mining & Quarrying	49	6.45	18	31
Blasters, Construction	5	5.88	2	3
Shooters or Shooters, Seismograph	1	11.11	1	0
Surveyors Helpers	45	4.23	40	5
Clothing Ironers & Pressers	34	3.70	0	34
Pressers, Hand	5	3.45	0	5
Pressers, Machine	9	3.83	0	9
Pressers, Machine, Laundry	18	3.73	0	18
Shapers & Pressers	2	3.51	0	2
Cutting Operatives, NEC	8	2.09	1	7
Glass Cut-Off Machine Operators	5	3.33	1	4
Glass Cutters, Machine	1	3.23	0	1
Rubber Goods Cutter-Finisher Operators	1	2.22	0	1
Second Cutters, Hand	1	1.82	0	1
Dressmakers, exc. Factory	25	8.99	5	20
Drillers, Earth	161	4.85	98	63
Auger Machine Operators	5	3.94	3	2
Cable Drillers	4	7.41	3	1
Drillers, Machine	94	4.30	52	42
Hydraulic Operators	9	4.62	5	4
Rotary Drill Operators	17	6.34	12	5
Rotary Drill Operator Helpers	32	6.52	23	9
Dry Wall Installers, Lathers	12	4.55	10	2
Dry Wall Applicators	6	4.72	5	1
Lathers	1	3.70	1	0
Tapers	5	4.55	4	1

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Filers, Polishers, Sanders, Buffers	34	3.59	9	25
Filers, Grinders, Buffers, Chippers	23	4.08	8	15
Sandblasters/Shotblasters	2	3.51	0	2
Glass Grinders/Watch Crystal Edge Grinders	7	3.15	1	6
Hand Edgers/Belt Seamers	1	2.00	0	1
Polishers, Glass &/Or Blockers	1	3.03	0	1
Garage Workers, Gas Station Attendants	174	4.28	81	93
Fuel Pump Attendants, Lubricators	165	4.30	77	88
Tire Changers	9	3.96	4	5
Laundry, Drycleaning Operators, NEC	58	5.85	11	47
Markers, Classifiers, Assemblers	7	4.93	0	7
Spotters, Drycleaning	1	8.33	0	1
Spotters, Washable Materials	1	9.09	0	1
Washers, Machine &/Or Starchers	21	5.80	5	16
Tumbler Operators	1	10.00	0	1
Drycleaning Machine Operators	6	5.71	0	6
Laundry Operators, Small Establishments	15	6.85	6	9
Rug Cleaners, Hand	1	3.85	0	1
Rug Cleaners, Machine	1	6.67	0	1
Folders, Laundry	3	6.00	0	3
Washers, Synthetic Fibers	1	3.45	0	1
Mine Operatives, NEC	690	4.16	412	278
Headers, Bottomers, Car Droppers	16	4.08	9	7
Brattice Builders	46	4.13	27	19
Coal Washers	10	3.98	6	4
Continuous Mining Machine Operators	109	4.06	64	45
Cutting Machine Operators	43	4.14	25	18
Derrick Operators, Petroleum & Gas	9	6.21	7	2
Drier Operators, Coal or Ore	5	4.85	3	2
Lamp Keepers, Repairers	17	4.12	10	7
Loading Machine Operators	66	4.06	39	27
Long-Wall Miner Operators	5	3.85	3	2

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Long-Wall Miner Operator Helpers	10	3.76	6	4
Roustabouts	45	6.32	34	11
Service Unit Operators, Oil Well	1	7.69	1	0
Shaker Tenders	3	3.41	2	1
Shuttle Car Operators	205	4.09	120	85
Tipple Operators	38	4.08	22	16
Panelboard Operators, Grinding Mill Operators	8	3.33	4	4
Rock-Dust Sprayers	37	4.07	22	15
Separation Tenders	5	4.17	3	2
Mill &/Or Grinder Operators, Minerals	11	3.23	5	6
Crushing or Ore Stamping Machine Operators	1	2.94	0	1
Mixing Operatives	4	2.05	1	3
Asphalt Mixing Machine Tenders	1	6.25	1	0
Tinters	1	3.85	0	1
Mixers, Food & Tobacco	1	1.82	0	1
Mixers, Ore & Metals	1	2.22	0	1
Oilers	23	3.87	11	12
Painters, Manufactured Articles	18	3.62	7	11
Painters, Automotive	7	4.93	4	3
Painters, Production	11	3.10	3	8
Photographic Process Workers	4	2.86	3	1
Developers, Projection Printers	3	5.36	2	1
Multiple Photo Printer Operators	1	4.76	1	0
Sailors & Deckhands	23	4.66	13	10
Boatswains	3	4.92	2	1
Able Seamen	7	4.55	4	3
Ordinary Seamen	13	4.66	7	6
Sawyers	24	3.05	2	22
Cut-Off Saw Operators, Lumber	2	2.56	0	2
Cut-Off Sawyers, Log	2	3.17	0	2
Edgers, Automatic &/Or Pony	3	2.78	0	3
Head Sawyers	3	3.00	0	3

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Resawyers	1	5.56	0	1
Ripsaw Operators	2	2.82	0	2
Sawyers, Metal	9	3.86	2	7
Trim Saw Operators	2	3.23	0	2
Sewers & Stitchers	178	3.78	30	148
Menders	1	4.55	0	1
Sewing Machine Operators, Regular Equipment, Nongarment	16	3.76	3	13
Garment Repairers	1	3.45	0	1
Sewing Machine Operators, Special Equipment, Nongarment	5	5.81	2	3
Shoe Parts Sewers, Hand	1	3.70	0	1
Sewing Machine Operators, Special Equipment, Garment	19	3.73	3	16
Sewing Machine Operators, Regular Equipment, Garment	135	3.76	22	113
Shoemaking Machine Operators	34	3.00	12	22
Assemblers For Puller-Over	1	3.85	0	1
Cementers, Machine Joiner	2	4.55	1	1
Inkers, Hand or Machine	1	2.86	0	1
Repairers, Shoe Finish	2	5.00	1	1
Stitchers, Special Machine	3	3.90	1	2
Stitchers, Standard Machine	15	3.31	6	9
Stitchers, Utility	2	5.13	1	1
Skivers	1	3.23	0	1
Trimmers, Machine	3	3.75	1	2
Fasteners, Machine	1	3.85	0	1
Cementers, Pasters, Backers, etc.	3	2.88	1	2
Furnace Tenders, Stokers, exc. Metal	36	4.41	7	29
Stationary Boiler Firers	24	5.04	6	18
Batch, Furnace, Tank Operators, Glass	8	4.21	1	7
Kiln Operators, Minerals	4	3.64	0	4
Winding Operatives, NEC	4	2.68	1	3
Coil Winders	4	2.94	1	3
Miscellaneous Machine Operators, Meat & Dairy Products	1	0.89	0	1
Dairy Processing Equipment Operators	1	2.17	0	1

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Miscellaneous Machine Operators, All Other Food Products	12	4.33	7	5
Doughnut Makers/Doughnut Machine Operators	10	5.99	7	3
Dividing Machine Operators, etc.	1	3.85	0	1
Oven Operators	1	2.44	0	1
Miscellaneous Machine Operators, Lumber Products, Furniture	1	1.16	0	1
Power Barker Operators	1	2.56	0	1
Miscellaneous Machine Operators, Paper, Allied Products	1	0.52	0	1
Pulpers	1	3.85	0	1
Miscellaneous Machine Operators, Chemical and Allied Products	134	2.67	31	103
Pushers	1	2.33	0	1
Shredder Operators, Cellulose	1	2.50	0	1
Spinners, Synthetic Filaments	5	2.81	1	4
Evaporator Operators, Chemical	1	4.35	0	1
Pumpers, Liquids	14	4.55	7	7
Chemical Operator Helpers	6	2.63	1	5
Chemical Operators A	78	2.57	17	61
Chemical Operators B	18	2.48	4	14
Grinder Operators, Chemical	2	2.70	0	2
Drier Operators, Chemical, Plastics, Rubber	1	2.94	0	1
Chief Operators	7	2.55	1	6
Miscellaneous Machine Operators, Rubber, Miscellaneous Plastics	20	2.50	3	17
Rubber Mill Operators	1	3.57	0	1
Press Tenders, Rubber Goods	3	2.91	1	2
Belt Builders	1	4.17	0	1
Compression &/Or Injection Molding Machine Operators, Plastics	5	2.29	0	5
Extruder Operator Helpers	10	2.83	2	8

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Miscellaneous Machine Operators, Stone, Clay and Glass	39	2.32	4	35
Lehr Tenders	5	2.94	1	4
Molding Machine Operators, Pressers	1	1.64	0	1
Ware Finishers &/Or Foot Casters	5	2.86	1	4
Glazing Machine Operators	1	2.33	0	1
Forming Machine Operators, Glass Container	8	2.40	1	7
Drawing-Kiln/Glass Rolling Machine Operators	2	2.70	0	2
Spray Machine Operators	1	3.45	0	1
Press Operators	3	2.08	0	3
Blockmaking Machine Operators	1	1.54	0	1
Dippers	2	2.70	0	2
Brick & Tile Making Machine Operators	2	2.74	0	2
Concrete Vault Makers	1	2.78	0	1
Floor Workers, Glass	7	2.40	1	6
Miscellaneous Machine Operators, Primary Metals	23	2.84	6	17
Operators, Door Machine	2	2.94	1	1
Pump Operators, By-Products	4	3.33	1	3
Roll Builders	1	2.56	0	1
Heaters, Coke Production	3	3.70	1	2
Coilers, Winders, &/Or Spoolers	4	3.48	1	3
Draw-Bench Operators, Tube Drawers	3	2.78	1	2
Coremakers, Machine	1	2.78	0	1
Alodize Machine Operators	1	2.56	0	1
Picklers, Continuous Pickling Line	3	3.19	1	2
Coil Tapers, Hand or Machine	1	2.27	0	1
Miscellaneous Machine Operators, Manufacturing, NEC	3	2.11	0	3
Coremakers, Hand, Bench, Floor	1	2.94	0	1
Chippers	1	2.44	0	1
Vulcanizers, Footwear	1	3.03	0	1
Miscellaneous Machine Operators, Nonmanufacturing	25	5.21	16	9
Tire Fabricators, Repairers	20	6.29	14	6
Refinery Operators, Petroleum	3	5.77	2	1

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Decorating Machine Operators	2	2.27	0	2
Operatives, NEC, Durable Goods	27	2.32	3	24
Banders, Hand	1	4.00	0	1
Breakers	4	2.88	1	3
Catchers	1	1.75	0	1
Casters, Pottery & Porcelain	1	2.56	0	1
Decorating Equipment Setters	1	3.13	0	1
Gatherers	9	2.65	1	8
Rolling Mill Operator Helpers	1	1.92	0	1
Clay Turners	2	2.67	0	2
Warm-In Workers	7	2.70	1	6
Operatives, NEC, Nondurable Goods	33	3.29	11	22
Baker Helpers	3	4.55	1	2
Chicken Cutters	1	4.00	0	1
Filter Operators, Petroleum	5	6.33	3	2
Floor Workers, Footwear	2	3.77	1	1
Poultry Dressers, Eviscerators	5	3.31	1	4
Thread Trimmers	3	3.23	1	2
Finishers, Pottery & Porcelain	2	3.03	0	2
Purification Operators, etc.	1	4.76	0	1
Press Assistants & Feeders	5	3.73	2	3
Mailers	6	4.05	2	4
Operatives, NEC, Nonmanufacturing	23	7.69	18	5
Billposters	2	8.00	2	0
Exterminators	4	9.30	3	1
Natural Gas Treating Unit Operators	6	6.38	4	2
Termite Treaters	10	8.55	8	2
Termite Treater Helpers	1	5.00	1	0
TRANSPORT EQUIPMENT OPERATIVES	1,158	3.94	616	542
Bus Drivers	68	3.82	27	41
Delivery & Route Workers	224	3.81	124	100

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Fork Lift, Tow Motor Operators	63	2.35	29	34
Industrial Truck Operators	61	2.43	29	32
Log Handling Equipment Operators	2	1.38	0	2
Parking Attendants	41	14.70	12	29
Tower Operators	2	3.03	0	2
Taxicab Drivers, Chauffeurs	35	4.76	3	32
Ambulance Driver	8	6.15	3	5
Taxi Drivers	23	4.40	0	23
Chauffeurs	4	4.82	0	4
Truck Drivers	725	4.04	421	304
Truck Drivers	725	4.04	421	304
ALL OTHER SEMISKILLED WORKERS	749	3.69	283	466
SERVICE WORKERS	6,388	7.08	2,838	3,550
CLEANING SERVICE WORKERS	1,637	7.62	551	1,086
Janitors & Sextons	1,637	7.62	551	1,086
FOOD SERVICE WORKERS	3,071	7.83	1,736	1,335
Bakers, Bread &/Or Pastry	20	6.80	9	11
Bartenders	74	7.03	33	41
Waiters Assistants	55	5.15	49	6
Cooks, exc. Private	782	7.89	364	418
Cooks, Short Order/Specialty Fast Food	324	9.14	182	142
Cooks, Restaurant	179	8.53	93	86
Cooks, Institutional	279	6.55	89	190
Butchers &/Or Meat Cutters	99	6.77	55	44
Waiters	714	7.42	470	244
Hosts/Hostesses, Restaurant, Lounge, Coffee Shop	16	7.69	11	5
Waiters or Waitresses	698	7.41	459	239
Food Workers, NEC, exc. Private	1,327	8.39	756	571

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Food Preparation & Service Workers, Fast Food Restaurant	759	9.30	475	284
Pantry, Sandwich &/Or Coffee Makers	8	8.16	5	3
All Other Food Service Workers	560	7.40	276	284
HEALTH SERVICE WORKERS	639	5.53	256	383
Nurses Aides, Orderlies	639	5.53	256	383
Nurses Aide/Orderly	639	5.53	256	383
PERSONAL SERVICE WORKERS	253	5.56	30	223
Attendants, Recreation, Amusement	22	4.45	2	20
Recreation Facility Attendants	16	4.75	2	14
Game Operators, Ride Operators, Concession Workers	4	3.70	0	4
Pin Chasers	2	4.44	0	2
Attendants, Personal Service, NEC	45	6.76	8	37
Funeral Attendants	10	6.25	0	10
Masseurs or Masseuses	1	4.76	0	1
Instructors, Reducing	6	6.45	0	6
Housekeepers, Hotel & Motel	15	7.25	6	9
Checkroom & Locker Room Attendants	1	4.76	0	1
Guides, Sightseeing or Establishment	1	9.09	0	1
Other Personal Service Attendants	11	7.19	2	9
Baggage Porters & Bellhops	19	10.11	6	13
Bellhops, Bag Porters, Doorkeepers, etc.	19	10.27	6	13
Barbers	14	7.73	0	14
Child Care Workers, exc. Private	29	7.84	0	29
Child Care Attendants	13	7.83	0	13
Child Care Workers	16	7.84	0	16
Elevator Operators	25	9.73	8	17
Hairdressers, Cosmetologists	71	4.24	0	71
Cosmetologists/Women's Hairstylists	70	4.26	0	70
Manicurists	1	6.25	0	1

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
School Monitors	5	3.76	3	2
Welfare Service Aides	23	4.72	3	20
PROTECTIVE SERVICE WORKERS				
Crossing Guards, Bridgetenders	511	5.81	168	343
Crossing or Bridgetenders	17	6.20	2	15
School Crossing Guards	6	6.59	1	5
Firefighters	11	6.01	1	10
Firefighters	28	2.00	7	21
Fire Officers	24	2.02	6	18
Guards	4	2.04	1	3
Guards & Doorkeepers	394	9.07	146	248
Checkers, Fitting Room	345	9.49	141	204
Fish & Game Wardens	3	8.57	1	2
Correction Officers &/Or Jailers	6	6.19	1	5
U. S. Marshalls	40	6.94	3	37
Police & Detectives	1	5.56	0	1
Detectives	59	2.35	12	47
Railroad Police	3	2.59	1	2
Police Officers	1	2.63	0	1
Police Detectives	6	2.30	1	5
Police Patrolmen/Women	2	1.72	0	2
Parking Enforcement Officers	46	2.44	10	36
Sheriffs & Bailiffs	1	1.47	0	1
Sheriffs	12	4.86	1	11
	12	4.96	1	11
OTHER SERVICE WORKERS				
Supervisors, Nonworking, Service	277	6.05	97	180
All Other Service Workers	59	5.15	29	30
	218	6.35	68	150
LABORERS, EXCEPT FARM	2,366	4.45	1,033	1,333

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
ANIMAL CARETAKERS	3	5.56	0	3
CONSTRUCTION LABORERS, EXC. CARPENTERS HELPERS	105	3.86	51	54
Air Hammer Operators	7	4.83	4	3
Form Setters, Metal Road Form	1	5.00	1	0
Fence Erectors	2	5.88	1	1
Pipelayers	12	3.91	6	6
Reinforcing-Iron Workers	43	5.69	29	14
Highway Maintenance Workers	38	2.67	9	29
Asphalt Rakers	2	6.45	1	1
FREIGHT, MATERIAL HANDLERS	36	3.11	13	23
Platform Workers, Glass	1	2.17	0	1
Chain Offbearers, Lumber	3	2.01	0	3
Loaders, Car & Truck	1	2.22	0	1
Lumber Straighteners	1	3.13	0	1
Off-Bearers	2	2.17	0	2
Conveyor Operators or Tenders	25	4.01	13	12
Cullet Crusher/Washer Operators	1	3.85	0	1
Work Distributors	2	1.77	0	2
GARBAGE COLLECTORS	34	4.14	6	28
GARDENERS, GROUNDSKEEPERS, EXC. FARM	99	6.20	30	69
TIMBERCUTTING, LOGGING WORKERS	9	1.60	0	9
Chasers	1	2.17	0	1
Choker Setters, Lumber	2	1.48	0	2
Fallers &/Or Buckers	5	1.87	0	5
Head Loaders	1	1.72	0	1
STOCK HANDLERS	241	4.78	148	93

TABLE 6
CONTINUED

OCCUPATION	Total Openings	% of 1982 Employment	Openings Due To Growth	Openings Due To Separation
Order Fillers	78	4.28	44	34
Stock Clerks, Sales Floor	163	5.06	104	59
VEHICLE WASHERS, EQUIPMENT CLEANERS	1	2.04	0	1
Polishers, Mold	1	2.08	0	1
OTHER LABORERS	1,838	4.47	785	1,053
Setters &/Or Drawers	7	2.88	0	7
Furnace Operator Helpers/Heater Helpers	6	3.17	1	5
Riggers	21	3.68	5	16
Helper, Trades	392	4.38	224	168
Cannery Workers	10	3.62	2	8
Treers	2	5.00	1	1
Line Service Attendants	3	7.50	2	1
Forest Conservation Workers	3	3.75	1	2
All Other Unskilled Workers	1,394	4.54	549	845

TABLE 7-A

MINING

Wage and Salary Employment and Percent Distribution by Occupation
1976 and Projected 1982*

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
TOTAL, ALL OCCUPATIONS	68,667	100.00	80,771	100.00	12,104	17.6
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	2,658	3.87	3,134	3.88	476	17.9
Engineers	1,202	1.75	1,415	1.75	213	17.7
Engineering, Science Technicians	688	1.00	808	1.00	120	17.4
MANAGERS & OFFICIALS	2,494	3.63	2,963	3.67	469	18.8
SALES WORKERS	89	0.13	106	0.13	17	19.1
CLERICAL WORKERS	2,536	3.69	3,002	3.72	466	18.4
Stenographers, Typists, Secretaries	429	0.62	515	0.64	86	20.0
Stock Clerks, Store Keepers	507	0.74	593	0.73	86	17.0
General Clerks, Office	514	0.75	620	0.77	106	20.6
CRAFTS & KINDRED WORKERS	25,694	37.42	30,146	37.32	4,452	17.3
Carpenters	580	0.84	677	0.84	97	16.7
Roof Bolters	4,581	6.67	5,348	6.62	767	16.7
Electricians	2,855	4.16	3,332	4.13	477	16.7
Heavy Equipment Operators	3,128	4.56	3,664	4.54	536	17.1
Blue Collar Worker Supervisors	5,976	8.70	7,004	8.67	1,028	17.2
Auto Mechanics	600	0.87	712	0.88	112	18.7
Mine Machinery Mechanics	2,882	4.20	3,364	4.16	482	16.7
Maintenance Mechanics	578	0.84	678	0.84	100	17.3
Fire Bosses	441	0.64	515	0.64	74	16.8
Maintenance Repairers, General Utility	737	1.07	868	1.07	131	17.8
OPERATIVES	25,240	36.76	29,788	36.88	4,548	18.0
Welders & Flame Cutters	892	1.30	1,046	1.30	154	17.3
Blasters	648	0.94	757	0.94	109	16.8
Drillers, Machine	1,871	2.72	2,182	2.70	311	16.6
Rotary Drill Operator Helpers	352	0.51	491	0.61	139	39.5
Brattice Builders	953	1.39	1,113	1.38	160	16.8
Continuous Mining Machine Operators	2,301	3.35	2,686	3.33	385	16.7
Cutting Machine Operators	890	1.30	1,039	1.29	149	16.7
Lamp Keepers, Repairers	354	0.52	413	0.51	59	16.7
Loading Machine Operators	1,393	2.03	1,626	2.01	233	16.7
Roustabouts	511	0.74	712	0.88	201	39.3
Shuttle Car Operators	4,295	6.25	5,014	6.21	719	16.7
Tipple Operators	798	1.16	931	1.15	133	16.7
Rock-Dust Sprayers	779	1.13	909	1.13	130	16.7
Truck Drivers	2,075	3.02	2,440	3.02	365	17.6
SERVICE WORKERS	859	1.25	1,004	1.24	145	16.9
Supervisors, Nonworking, Service	353	0.51	412	0.51	59	16.7
LABORERS, EXCEPT FARM	9,097	13.25	10,628	13.16	1,531	16.8
Conveyor Operators or Tenders	437	0.64	509	0.63	72	16.5
Helpers, Trades	1,029	1.50	1,201	1.49	172	16.7

* Listed occupations are not all-inclusive and may not add to totals.

TABLE 7-B

CONSTRUCTION

Wage and Salary Employment and Percent Distribution by Occupation
1976 and Projected 1982*

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
TOTAL, ALL OCCUPATIONS	32,509	100.00	41,480	100.00	8,971	27.6
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	965	2.97	1,218	2.94	253	26.2
Engineers	170	0.52	210	0.51	40	23.5
Engineering, Science Technicians	297	0.91	368	0.89	71	23.9
Cost Estimators	305	0.94	392	0.95	87	28.5
MANAGERS & OFFICIALS	2,667	8.20	3,422	8.25	755	28.3
SALES WORKERS	210	0.65	275	0.66	65	31.0
CLERICAL WORKERS	1,618	4.98	2,076	5.00	458	28.3
Stenographers, Typists, Secretaries	560	1.72	727	1.75	167	29.8
Bookkeepers	350	1.08	453	1.09	103	29.4
General Clerks, Office	450	1.38	579	1.40	129	28.7
CRAFTS & KINDRED WORKERS	16,956	52.16	21,625	52.13	4,669	27.5
Carpenters	3,610	11.10	4,762	11.48	1,152	31.9
Bricklayers	739	2.27	974	2.35	235	31.8
Cement Masons	609	1.87	779	1.88	170	27.9
Electricians	1,638	5.04	2,111	5.09	473	28.9
Heavy Equipment Operators	3,947	12.14	4,866	11.73	919	23.3
Painters, Construction, Maintenance	535	1.65	693	1.67	158	29.5
Plumbers & Pipefitters	1,315	4.05	1,679	4.05	364	27.7
Roofers	351	1.08	452	1.09	101	28.8
Structural Steel Workers	678	2.09	863	2.08	185	27.3
Blue Collar Worker Supervisors	780	2.40	985	2.37	205	26.3
Boilermakers	175	0.54	225	0.54	50	28.6
Sheet Metal Workers, Tinsmiths	461	1.42	591	1.42	130	28.2
Air Conditioning, Heating, Refrigeration Mechanics	283	0.87	362	0.87	79	27.9
Engineering Equipment Mechanics	181	0.56	223	0.54	42	23.2
Diesel Mechanics	200	0.62	248	0.60	48	24.0
Crane, Derrick & Hoist Operators	404	1.24	483	1.16	79	19.6
OPERATIVES	2,974	9.15	3,713	8.95	739	24.8
Welders & Flame Cutters	386	1.19	479	1.15	93	24.1
Asbestos & Insulation Workers	253	0.78	324	0.78	71	28.1
Dry Wall Installers, Lathers	204	0.63	264	0.64	60	29.4
Truck Drivers	1,365	4.20	1,708	4.12	343	25.1
SERVICE WORKERS	304	0.94	388	0.94	84	27.6
Janitors & Sextons	240	0.74	310	0.75	70	29.2
LABORERS, EXCEPT FARM	6,815	20.96	8,763	21.13	1,948	28.6
Pipelayers	183	0.56	218	0.53	35	19.1
Reinforcing Iron Workers	581	1.79	756	1.82	175	30.1
Helpers, Trades	2,847	8.76	3,734	9.00	887	31.2

* Listed occupations are not all-inclusive and may not add to totals.

TABLE 7-C

MANUFACTURING

Wage and Salary Employment and Percent Distribution by Occupation
1976 and Projected 1982*

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
TOTAL, ALL OCCUPATIONS	126,383	100.00	131,363	100.00	4,980	3.9
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	9,690	7.67	10,080	7.67	390	4.0
Engineers	3,039	2.40	3,161	2.41	122	4.0
Chemists	884	0.70	918	0.70	34	3.8
Engineering, Science Technicians	2,578	2.04	2,673	2.03	95	3.7
MANAGERS & OFFICIALS	4,525	3.58	4,734	3.60	209	4.6
SALES WORKERS	1,443	1.14	1,503	1.14	60	4.2
CLERICAL WORKERS	11,469	9.07	11,917	9.07	448	3.9
Stenographers, Typists, Secretaries	2,099	1.66	2,189	1.67	90	4.3
Office Machine Operators	651	0.52	669	0.51	18	2.8
Bookkeepers	764	0.60	790	0.60	26	3.4
Production Clerks	747	0.59	775	0.59	28	3.7
Shipping, Receiving Clerks	1,443	1.14	1,492	1.14	49	3.4
Stock Clerks, Store Keepers	1,024	0.81	1,068	0.81	44	4.3
General Clerks, Office	1,778	1.41	1,869	1.42	91	5.1
CRAFTS & KINDRED WORKERS	30,341	24.01	31,560	24.03	1,219	4.0
Electricians	1,574	1.25	1,635	1.24	61	3.9
Plumbers & Pipefitters	1,360	1.08	1,409	1.08	49	3.6
Blue Collar Worker Supervisors	6,084	4.81	6,331	4.82	247	4.1
Machinists	1,621	1.28	1,709	1.30	88	5.4
Millwrights	1,200	0.95	1,249	0.95	49	4.1
Maintenance Mechanics	1,901	1.50	2,004	1.53	103	5.4
Crane, Derrick & Hoist Operators	1,395	1.10	1,448	1.10	53	3.8
Inspectors	1,764	1.40	1,809	1.38	45	2.6
Testers	960	0.76	995	0.76	35	3.6
Maintenance Repairers, General Utility	1,329	1.05	1,373	1.05	44	3.3
OPERATIVES	50,487	39.95	52,503	39.97	2,016	4.0
Furnace Tenders, Smelters, Pourers	647	0.51	671	0.51	24	3.7
Lathe Milling Machine Operatives	943	0.75	1,012	0.77	69	7.3
Punch, Stamping Press Operatives	641	0.51	674	0.51	33	5.1
Welders & Flame Cutters	2,299	1.82	2,482	1.89	183	8.0
Selectors, Glassware	1,585	1.25	1,620	1.23	35	2.2
Production Packagers	2,535	2.01	2,622	2.00	87	3.4
Assemblers	3,207	2.54	3,315	2.52	108	3.4
Filers, Polishers, Sanders, Buffers	870	0.69	920	0.70	50	5.7
Sawyers	774	0.61	787	0.60	13	1.7
Sewing Machine Operators, Regular Equipment, Garment	3,445	2.73	3,576	2.72	131	3.8
Chemical Operators, A and B	3,637	2.88	3,761	2.79	124	3.4
Delivery & Route Workers	1,570	1.24	1,650	1.26	80	5.1
Fork Lift, Tow Motor Operators	1,972	1.56	2,031	1.55	59	3.0
Truck Drivers	1,744	1.38	1,811	1.38	67	3.8
SERVICE WORKERS	2,818	2.23	2,934	2.23	116	4.1
Janitors & Sextons	1,426	1.13	1,490	1.13	64	4.5
Guards & Doorkeepers	732	0.58	762	0.58	30	4.1
LABORERS, EXCEPT FARM	15,610	12.35	16,132	12.28	522	3.3
Helpers, Trades	1,984	1.57	2,060	1.57	76	3.8

* Listed occupations are not all-inclusive and may not add to totals.

TABLE 7-D

TRANSPORTATION, COMMUNICATIONS & PUBLIC UTILITIES

Wage and Salary Employment and Percent Distribution by Occupation
1976 and Projected 1982*

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
TOTAL, ALL OCCUPATIONS	39,575	100.00	41,541	100.00	1,966	5.0
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	3,294	8.32	3,412	8.21	118	3.6
Engineers	917	2.32	941	2.27	24	2.6
Electrical, Electronic Technicians	431	1.09	443	1.07	12	2.8
Radio, TV Announcers	387	0.98	406	0.98	19	4.9
Accountants & Auditors	274	0.69	288	0.69	14	5.1
MANAGERS & OFFICIALS	3,343	8.45	3,502	8.43	159	4.8
Railroad Conductors	614	1.55	611	1.47	- 3	- 0.5
SALES WORKERS	481	1.22	503	1.21	22	4.6
CLERICAL WORKERS	9,368	23.67	9,747	23.46	379	4.0
Stenographers, Typists, Secretaries	1,071	2.71	1,121	2.70	50	4.7
Office Machine Operators	368	0.93	380	0.91	12	3.3
Bookkeepers	691	1.75	721	1.74	30	4.3
Cashiers	255	0.64	265	0.64	10	3.9
Clerical Supervisors	619	1.56	641	1.54	22	3.6
Production Clerks	199	0.50	208	0.50	9	4.5
Meter Readers, Utilities	432	1.09	436	1.05	4	0.9
Shipping, Receiving Clerks	221	0.56	246	0.59	25	11.3
Stock Clerks, Store Keepers	388	0.98	405	0.97	17	4.4
Telephone Operators	1,383	3.49	1,446	3.48	63	4.6
General Clerks, Office	1,238	3.13	1,260	3.03	22	1.8
Service Representatives	276	0.70	290	0.70	14	5.1
CRAFTS & KINDRED WORKERS	10,951	27.67	11,256	27.10	314	2.9
Electricians	206	0.52	207	0.50	1	0.5
Heavy Equipment Operators	265	0.67	267	0.64	2	0.8
Ballast Cleaning Machine Operators, etc.	238	0.60	237	0.57	- 1	- 0.4
Plumbers & Pipefitters	272	0.69	275	0.66	3	1.1
Blue Collar Worker Supervisors	1,327	3.35	1,370	3.30	43	3.2
Machinists	198	0.50	197	0.47	- 1	- 0.5
Auto Mechanics	368	0.93	397	0.96	29	7.9
Hydroelectric Machine Mechanics, etc.	297	0.75	301	0.72	4	1.3
Railroad Car Shop Repairers	620	1.57	618	1.49	- 2	- 0.3
Diesel Mechanics	414	1.05	460	1.11	46	11.1
Electric Power Line Installers, Repairers	1,107	2.80	1,132	2.73	25	2.3
Locomotive Engineers	473	1.20	471	1.13	- 2	- 0.4
Telephone Installers, Repairers	1,250	3.16	1,311	3.16	61	4.9
Maintenance Repairers, General Utility	236	0.60	242	0.58	6	2.5
OPERATIVES	8,665	21.90	9,464	22.78	799	9.2
Sailors & Deckhands	420	1.06	494	1.19	74	17.6
Delivery & Route Workers	492	1.24	564	1.36	72	14.6
Taxi Drivers	570	1.44	523	1.26	- 47	- 8.2
Truck Drivers	4,605	11.64	5,269	12.68	664	14.4
SERVICE WORKERS	762	1.93	804	1.94	42	5.5
Janitors & Sextons	472	1.19	498	1.20	26	5.5
LABORERS, EXCEPT FARM	2,711	6.85	2,853	6.87	142	5.2
Helpers, Trades	412	1.04	422	1.02	10	2.4

* Listed occupations are not all-inclusive and may not add to totals.

TABLE 7-E

WHOLESALE & RETAIL TRADE

Wage and Salary Employment and Percent Distribution by Occupation
1976 and Projected 1982*

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
TOTAL, ALL OCCUPATIONS	116,599	100.00	147,145	100.00	30,546	26.2
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	4,333	3.72	5,326	3.62	993	22.9
Designers	691	0.59	858	0.58	167	24.2
Buyers, Retail &/Or Wholesale Trade	1,740	1.49	2,136	1.45	396	22.8
MANAGERS & OFFICIALS	11,467	9.83	14,248	9.68	2,781	24.3
Sales Managers, Retail Trade	2,078	1.78	2,513	1.71	435	20.9
Managers, Store	5,577	4.78	6,769	4.60	1,192	21.4
Wholesalers	1,591	1.36	1,994	1.36	403	25.3
SALES WORKERS	26,772	22.96	32,062	21.79	5,290	19.8
Sales Clerks	18,432	15.81	21,993	14.91	3,561	19.3
CLERICAL WORKERS	25,807	22.13	31,936	21.70	6,129	23.7
Stenographers, Typists, Secretaries	1,508	1.29	1,867	1.27	359	23.8
Office Machine Operators	853	0.73	1,058	0.72	205	24.0
Bookkeepers	2,249	1.93	2,773	1.88	524	23.3
Cashiers	7,766	6.66	9,883	6.72	2,117	27.3
Shipping, Receiving Clerks	2,110	1.81	2,589	1.76	479	22.7
Stock Clerks, Store Keepers	4,593	3.94	5,670	3.85	1,077	23.4
General Clerks, Office	4,347	3.73	5,311	3.61	964	22.2
CRAFTS & KINDRED WORKERS	10,175	8.73	12,319	8.37	2,144	21.1
Blue Collar Worker Supervisors	809	0.69	981	0.67	172	21.3
Auto Body Repairers	756	0.65	853	0.58	97	12.8
Auto Mechanics	3,571	3.06	4,195	2.85	624	17.5
Engineering Equipment Mechanics	831	0.71	1,097	0.75	266	32.0
Maintenance Repairers, General Utility	734	0.63	898	0.61	164	22.3
OPERATIVES	12,020	10.31	14,427	9.80	2,407	20.0
Baggers	664	0.57	872	0.59	208	31.3
Garage Workers, Gas Station Attendants	3,416	2.93	3,853	2.62	437	12.8
Delivery & Route Workers	2,677	2.30	3,246	2.21	569	21.3
Truck Drivers	3,182	2.73	3,881	2.64	699	22.0
SERVICE WORKERS	19,683	16.88	29,107	19.78	9,424	47.9
Janitors & Sextons	1,989	1.71	2,540	1.73	551	27.7
Cooks, exc. Private	2,901	2.49	4,413	3.00	1,512	52.1
Butchers &/Or Meat Cutters	1,086	0.93	1,407	0.96	321	29.6
Waiters or Waitresses	4,741	4.07	7,186	4.88	2,445	51.6
Food Preparation & Service Workers, Fast Food Restaurant	5,197	4.46	8,034	5.46	2,837	54.6
LABORERS, EXCEPT FARM	6,342	5.44	7,720	5.25	1,378	21.7
Order Fillers	1,067	0.92	1,317	0.90	250	23.4
Stock Clerks, Sales Floor	2,599	2.23	3,222	2.19	623	24.0

* Listed occupations are not all-inclusive and may not add to totals.

TABLE 7-F

FINANCE, INSURANCE, & REAL ESTATE

Wage and Salary Employment and Percent Distribution by Occupation
1976 and Projected 1982*

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
TOTAL, ALL OCCUPATIONS	18,698	100.00	22,705	100.00	4,007	21.4
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	1,021	5.46	1,184	5.21	163	16.0
Accountants & Auditors	191	1.02	233	1.03	42	22.0
Underwriters	141	0.75	146	0.64	5	3.5
Credit Analysts	120	0.64	143	0.63	23	19.2
MANAGERS & OFFICIALS	3,554	19.01	4,275	18.83	721	20.3
SALES WORKERS	2,018	10.79	2,184	9.62	166	8.2
Insurance Agents, Brokers, etc.	1,433	7.66	1,469	6.47	36	2.5
Real Estate Agents, Brokers	449	2.40	573	2.52	124	27.6
CLERICAL WORKERS	9,906	52.98	12,260	54.00	2,354	23.8
Stenographers, Typists, Secretaries	1,284	6.87	1,516	6.68	232	18.1
Office Machine Operators	926	4.95	1,218	5.36	292	31.5
Bank Tellers	2,480	13.26	3,316	14.60	836	33.7
Bookkeepers	538	2.88	653	2.88	115	21.4
Cashiers	184	0.98	191	0.84	7	3.8
Clerical Supervisors	466	2.49	562	2.48	96	20.6
Collectors, Bill & Account	193	1.03	229	1.01	36	18.7
Claims Clerks	130	0.70	135	0.59	5	3.8
File Clerks	261	1.40	330	1.45	69	26.4
Claim Examiners, Insurance	292	1.56	296	1.30	4	1.4
Claim Adjusters	170	0.91	175	0.77	5	2.9
Receptionists	252	1.35	315	1.39	63	25.0
Raters	116	0.62	121	0.53	5	4.3
General Clerks, Office	1,223	6.54	1,436	6.32	213	17.4
Statement Clerks	276	1.48	377	1.66	101	36.6
CRAFTS & KINDRED WORKERS	492	2.63	621	2.74	129	26.2
Carpenters	161	0.86	205	0.90	44	27.3
Maintenance Repairers, General Utility	265	1.42	335	1.48	70	26.4
OPERATIVES	25	0.13	32	0.14	7	28.0
SERVICE WORKERS	1,218	6.51	1,558	6.86	340	27.9
Janitors & Sextons	917	4.90	1,167	5.14	250	27.3
Guards & Doorkeepers	123	0.66	162	0.71	39	31.7
LABORERS, EXCEPT FARM	464	2.48	591	2.60	127	27.4
Gardeners, Groundskeepers, exc. Farm	263	1.41	336	1.48	73	27.8
Helpers, Trades	141	0.75	179	0.79	38	27.0

* Listed occupations are not all-inclusive and may not add to totals.

TABLE 7-G

SERVICES*

Wage and Salary Employment and Percent Distribution by Occupation
1976 and Projected 1982**

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
TOTAL, ALL OCCUPATIONS	144,648	100.00	169,165	100.00	24,517	16.9
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	55,165	38.14	63,584	37.59	8,419	15.3
Engineering, Science Technicians	951	0.66	1,405	0.83	454	47.7
Nurses, Professional	5,094	3.52	6,011	3.55	917	18.0
Physicians, Medical & Osteopathic	1,402	0.97	1,639	0.97	237	16.9
Clinical Lab Technologists, Technicians	1,133	0.78	1,337	0.79	204	18.0
Dental Hygienists & Assistants	1,141	0.79	1,350	0.80	209	18.3
X-Ray Technicians	735	0.51	868	0.51	133	18.1
Licensed Practical Nurses	3,050	2.11	3,607	2.13	557	18.3
College & University Teachers	2,939	2.03	3,359	1.99	420	14.3
Elementary School Teachers	11,435	7.91	13,070	7.73	1,635	14.3
Preschool, Kindergarten Teachers	851	0.59	934	0.55	83	9.8
Secondary School Teachers	8,826	6.10	10,088	5.96	1,262	14.3
Writers, Artists & Entertainers	924	0.64	996	0.59	72	7.8
Accountants & Auditors	806	0.56	1,183	0.70	377	46.8
Clergy	5,150	3.56	5,033	2.98	- 117	- 2.3
Librarians	799	0.55	910	0.54	111	13.9
Vocational & Educational Counselors	805	0.56	920	0.54	115	14.3
MANAGERS & OFFICIALS	11,286	7.80	12,879	7.61	1,593	14.1
SALES WORKERS	915	0.63	1,147	0.68	232	25.4
CLERICAL WORKERS	24,031	16.61	28,744	16.99	4,713	19.6
Stenographers, Typists, Secretaries	9,014	6.23	10,756	6.36	1,742	19.3
Office Machine Operators	809	0.56	1,045	0.62	236	29.2
Bookkeepers	1,679	1.16	2,093	1.24	414	24.7
Cashiers	1,118	0.77	1,227	0.73	109	9.7
Receptionists	2,092	1.45	2,505	1.48	413	19.7
General Clerks, Office	1,704	1.18	2,060	1.22	356	20.9
CRAFTS & KINDRED WORKERS	6,352	4.39	7,729	4.57	1,377	21.7
Auto Mechanics	959	0.66	1,248	0.74	289	30.1
Maintenance Repairers, General Utility	871	0.60	1,032	0.61	161	18.5
OPERATIVES	7,026	4.86	8,359	4.93	1,313	18.7
Bus Drivers	1,342	0.93	1,523	0.90	181	13.5
Truck Drivers	763	0.53	1,080	0.64	317	41.5
SERVICE WORKERS	37,915	26.21	44,370	26.23	6,455	17.0
Janitors & Sextons	11,578	8.00	13,845	8.18	2,267	19.6
Cooks, exc. Private	4,733	3.27	5,403	3.19	670	14.2
Waiters & Waitresses	1,847	1.28	2,154	1.27	307	16.6
Nurses Aides, Orderlies	8,028	5.55	9,498	5.61	1,470	18.3
Hairdressers, Cosmetologists	1,754	1.21	1,667	0.99	- 87	- 5.0
Guards & Doorkeepers	1,399	0.97	2,097	1.24	698	49.9
LABORERS, EXCEPT FARM	1,958	1.35	2,373	1.40	415	21.2
Gardeners, Groundskeepers, exc. Farm	821	0.57	919	0.54	98	11.9

* Includes state colleges and universities, county schools, and state and local hospitals.

** Listed occupations are not all-inclusive and may not add to totals.

TABLE 7-H

GOVERNMENT*

Wage and Salary Employment and Percent Distribution by Occupation
1976 and Projected 1982**

OCCUPATION	1976 NUMBER	1976 % OF TOTAL	1982 NUMBER	1982 % OF TOTAL	Change, 1976-1982 NUMBER	Change, 1976-1982 PERCENT
TOTAL, ALL OCCUPATIONS	52,429	100.00	53,882	100.00	1,453	2.8
PROFESSIONAL, TECHNICAL & KINDRED WORKERS	9,749	18.59	10,010	18.58	261	2.7
Engineers	569	1.09	579	1.07	10	1.8
Life & Physical Scientists	322	0.61	327	0.61	5	1.6
Engineering, Science Technicians	1,205	2.30	1,229	2.28	24	2.0
Nurses, Professional	776	1.48	795	1.48	19	2.4
Health Technologists & Technicians	317	0.60	326	0.61	9	2.8
Accountants & Auditors	272	0.52	281	0.52	9	3.3
Tax Examiners, Collectors, Revenue Agents	448	0.85	459	0.85	11	2.5
Judges	368	0.70	380	0.71	12	3.3
Lawyers	436	0.83	445	0.83	9	2.1
Personnel, Labor Relations Specialists	327	0.62	338	0.63	11	3.4
Social Workers	963	1.84	1,003	1.86	40	4.2
Assessors	419	0.80	432	0.80	13	3.1
MANAGERS & OFFICIALS	6,883	13.13	7,069	13.12	186	2.7
Construction Inspectors, Public Administration	973	1.86	1,013	1.88	40	4.1
Inspectors, exc. Construction, Public Administration	822	1.57	841	1.56	19	2.3
Postmasters & Mail Superintendents	979	1.87	982	1.82	3	0.3
SALES WORKERS	464	0.89	484	0.90	20	4.3
Sales Clerks	463	0.88	483	0.90	20	4.3
CLERICAL WORKERS	15,539	29.64	15,888	29.49	349	2.2
Stenographers, Typists, Secretaries	3,320	6.33	3,420	6.35	100	3.0
Office Machine Operators	756	1.44	763	1.42	7	0.9
Bookkeepers	648	1.24	664	1.23	16	2.5
Cashiers	295	0.56	308	0.57	13	4.4
Eligibility Workers, Welfare	741	1.41	773	1.43	32	4.3
Clerical Supervisors	350	0.67	364	0.68	14	4.0
Dispatchers, Police, Fire, Ambulance	406	0.77	419	0.78	13	3.2
File Clerks	314	0.60	325	0.60	11	3.5
Mail Carriers, Postal Service	2,711	5.17	2,719	5.05	8	0.3
Postal Clerks	1,013	1.93	1,016	1.89	3	0.3
General Clerks, Office	3,141	5.99	3,228	5.99	87	2.8
CRAFTS & KINDRED WORKERS	3,760	7.17	3,866	7.17	106	2.8
Heavy Equipment Operators	667	1.27	691	1.28	24	3.6
Blue Collar Worker Supervisors	329	0.63	340	0.63	11	3.3
Auto Mechanics	420	0.80	436	0.81	16	3.8
Water Treatment Plant Operators	354	0.68	365	0.68	11	3.1
Maintenance Repairers, General Utility	614	1.17	633	1.17	19	3.1
OPERATIVES	2,383	4.55	2,472	4.59	89	3.7
Truck Drivers	1,707	3.26	1,776	3.30	69	4.0
SERVICE WORKERS	9,704	18.51	10,015	18.59	311	3.2
Janitors & Sextons	1,386	2.64	1,433	2.66	47	3.4

TABLE 7-H
CONTINUED

Nurses Aides, Orderlies	1,987	3.79	2,057	3.82	70	3.5
Welfare Service Aides	296	0.56	308	0.57	12	4.1
Firefighters	1,358	2.59	1,399	2.60	41	3.0
Correction Officers &/Or Jailers	560	1.07	576	1.07	16	2.9
Police & Detectives	2,356	4.49	2,432	4.51	76	3.2
LABORERS, EXCEPT FARM	3,947	7.53	4,078	7.57	131	3.3
Highway Maintenance Workers	1,369	2.61	1,421	2.64	52	3.8
Garbage Collectors	616	1.17	635	1.18	19	3.1
Gardeners, Groundskeepers, exc. Farm	325	0.62	336	0.62	11	3.4
Helpers, Trades	459	0.88	478	0.89	19	4.1

* Excludes state colleges and universities, county schools, and state and local hospitals, which are included in Services.

** Listed occupations are not all-inclusive and may not add to totals.

METHODOLOGY

The 1976 employment estimates, the 1982 employment projections, and the estimates of average annual job openings were prepared according to procedures outlined in various memoranda of the United States Department of Labor, Bureau of Labor Statistics (BLS). In addition, BLS provided computer services and technical assistance at various stages of preparation. The following is a brief summary of the procedures followed.

Occupational Staffing Patterns

Most of the staffing patterns for specific industries which were used to project occupational employment were developed by a series of mail surveys of West Virginia employers conducted between 1974 and 1976. Industries were sampled according to their narrow (3-digit) classifications as defined in the 1967 and 1972 editions of the Standard Industrial Classification Manual. In instances where no satisfactory staffing patterns were developed in West Virginia, staffing patterns from other sources were substituted. Staffing patterns for hospitals, educational services, religious institutions, railroads, the federal government, and a few smaller cells were based upon data supplied by other agencies or on national staffing patterns constructed from surveys done in other states.

Industry Employment Estimates

The Current Employment Statistics (CES) Program provides monthly and annual average data on nonagricultural wage and salary employment in West Virginia. Using CES annual average data for 1976, supplemented by information submitted by employers with their unemployment tax contributions to provide greater detail when needed, estimates of 1976 nonagricultural wage and

salary employment were prepared for narrow (3-digit) industry cells. Industry definitions from the 1972 edition of the Standard Industrial Classification Manual were used for Trade; some industries in Transportation, Communications, and Public Utilities; hospitals; and education. Definitions from the 1967 edition were used for all other industries.

Industry Projections

After the narrow industry employment estimates for 1976 were compiled, historical time series were developed and each industry cell projected to 1982 by the use of shift-share methods, freely modified by specific knowledge of employers and economic conditions in West Virginia where practical. The validity of any set of projections is contingent upon the validity of the underlying assumptions. The following major economic assumptions used by BLS to develop national projections were observed:

1. The economy will recover gradually from the high unemployment levels of the mid-1970's and approach full employment (four percent unemployment) by 1982.

2. The institutional framework of the United States economy will not change radically.

3. Major events, such as a widespread, long-lasting energy shortage or a war will not alter significantly the industrial structure of the economy or the rate of economic growth.

4. Current technological, scientific, and social trends, such as values placed on work, education, income, and leisure will continue.

Occupational Projections

The staffing pattern for each industry was projected to expand or contract at the same rate as employment in that industry. Therefore the percentage distribution for each occupation in each narrow (3-digit) industry is the same in both 1976 and 1982. Each occupation was summed to produce subtotals for broad (2-digit) industries and major industry divisions, and a total for all industries. Since the industries have different growth rates, this summation produced varying rates of growth or decline for the occupations.

Job Openings

Average annual job openings due to growth were produced by simply dividing the six-year net growth of each occupation by six. Since the calculations were performed on detailed occupations and added, growth openings for larger occupational groups may not equal exactly one-sixth of the net growth. Openings due to separation were calculated from separation rates developed for each occupation. These are based on working life tables derived from historical and projected mortality and labor force participation rates, and on 1970 census data for occupation by age and sex for the State of West Virginia. These rates estimate job openings resulting from death, retirement and other reasons for leaving the labor force. They do not include those openings which occur when workers move from one position or occupation to another.

ABBREVIATIONS

Because of space limitations, the following abbreviations were used in the occupational titles.

A/C	Air Conditioning
EDP	Electronic Data Processing
EEG	Electroencephalograph
EKG	Electrocardiograph
EXC.	Except
NEC	Not Elsewhere Classified
S&E	Science and Engineering